DOCUMENT RESUME

ED 084 489 CG 008 530

AUTHOR	Whitmore, Joanne Rand
TITLE	The Modification of Undesirable Attitudes and Classroom Behavior Through Constructive Use of Social Power in the School Peer Culture.
INSTITUTION	Stanford Univ., Calif. Stanford Center for Research and Development in Teaching.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
REPORT NO	TR-36
PUB DATE	Aug 73
CONTRACT	NE-C-00-3-0061
NOTE	208p.
EDRS PRICE	MF-$0.65 HC-$9.87
DESCRIPTORS	*Behavior Change; *Discipline Problems; Elementary School Students; Leadership; Locus of Control; Low Income Groups; Models; Peer Groups; *Reinforcement; *Self Concept; Social Behavior; Student Attitudes; *Youth Leaders

ABSTRACT

A student leadership program was implemented in an elementary school to increase the social value of constructive (appropriate) classroom behavior and to generate more positive pupil attitudes toward self and school. The specific aims of the intervention were to reduce the disruptive, negative behavior of some socially powerful students while increasing the rewards for more appropriate models and for teacher efforts to improve classroom climate. The Ss were low-income black students in grades 4, 5 and 6. Eight teachers and 280 peers identified 64 actual or potential social leaders who were randomly assigned to experimental or control conditions. Teachers classified the Ss as generally positive or negative in attitudes and behavior. The effects of the intervention upon attitudes of leaders were determined by measures of self-concept, locus of control, social efficacy, and attitudes toward school. Periodically, subject behavior was rated by teachers and coded by naive observers. Participation as leaders did reduce the tendency of subjects with negative attitudes and behavior to become increasingly negative. Males, especially, increased their sense of efficacy and internal acceptance of responsibility. The highest post-intervention self-reports came from the most successful leaders (as ranked by the experimenter). (Author/LP)

FILMED FROM BEST AVAILABLE COPY

ED 084489

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

SCRDT

Stanford Center for Research and Development in Teaching

SCHOOL OF EDUCATION STANFORD UNIVERSITY

ED 084489

STANFORD CENTER
FOR RESEARCH AND DEVELOPMENT
IN TEACHING

Technical Report No. 36

THE MODIFICATION OF UNDESIRABLE ATTITUDES AND CLASSROOM BEHAVIOR THROUGH CONSTRUCTIVE USE OF SOCIAL POWER IN THE SCHOOL PEER CULTURE

Joanne Rand Whitmore

School of Education
Stanford University
Stanford, California

August 1973

Published by the Stanford Center for Research and Development in Teaching, supported in part as a research and development center by funds from the National Institute of Education, U. S. Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect the position, policy, or endorsement of the National Institute of Education. (Contract No. NE-C-00-3-0061.)

This report reproduces the author's dissertation entitled "A Leadership Program Designed to Improve the Attitudes and Behavior of Black Elementary Students: An Action-Research Project" (Stanford University, 1973), with the exception of the following: Appendixes I-1, I-3, I-5, I-6, I-9, I-11, I-12 to I-16, Appendix II, and Appendix III.

INTRODUCTORY STATEMENT

The Center's mission is to improve teaching in American schools. Too many teachers still employ a didactic style aimed at filling passive students with facts. The teacher's environment often prevents him from changing his style, and may indeed drive him out of the profession. And the children of the poor typically suffer from the worst teaching.

The Center uses the resources of the behavioral sciences in pursuing its objectives. Drawing primarily upon psychology and sociology, but also upon other behavioral science disciplines, the Center has formulated programs of research, development, demonstration, and dissemination in three areas. Program 1, Teaching Effectiveness, is now developing a Model Teacher Training System that can be used to train both beginning and experienced teachers in effective teaching skills. Program 2, The Environment for Teaching, is developing models of school organization and ways of evaluating teachers that will encourage teachers to become more professional and more committed. Program 3, Teaching Students from Low-Income Areas, is developing materials and procedures for motivating both students and teachers in low-income schools.

This report presents the results of an intervention with students which accompanied a program of teacher in-service education under the project Effective Reinforcement for Achievement Behavior in Low-Income Children. The research was completed under the direct supervision of Project Leader Pauline S. Sears. The project was part of the Center's Program on Teaching Effectiveness.

PREFACE

This Technical Report reproduces most of the author's dissertation, "A Leadership Program Designed to Improve the Attitudes and Behavior of Black Elementary Students: An Action-Research Project." Some appendixes have been omitted; they can be found, if needed, in the complete dissertation, which is available from University Microfilms. The appendixes omitted are as follows:

Appendix I-1. Sears Self-Concept Inventory and scoring sheet. This inventory is already available from several sources, including Sears et al., "Effective Reinforcement for Achievement Behaviors in Disadvantaged Children: The First Year" (Stanford Center for Research and Development in Teaching, Technical Report No. 30), 1972. (ED 067 442)

Appendix I-3. Hess-Shipman Locus-of-Control Inventory and scoring sheet.

Appendix I-5. Guidelines for administration of the Sears, Hess, Gordon, and TAP measures.

Appendix I-6. Thinking About My School questionnaire. A forthcoming R&D Memorandum will include the questionnaire and instructions regarding its use.

Appendix I-9. Definitions of teacher behaviors and a teacher observation coding sheet.

Appendix I-11. A sample form for forced academic ratings of students by teachers. See Sears et al., 1972. (ED 067 442)

Appendixes I-12 through I-16, and Appendix II. These materials, which describe the intervention of this study in detail, will appear in a forthcoming manual by the author, "Student Leadership: Procedural Guidelines for the Development of Programs in Distressed Low-Income Elementary Schools."

Appendix III. Means, standard deviations, and correlations. Profiles of selected individual subjects.

Cross-references to these appendixes have not been removed from the text. The original numbers of the appendixes retained have been used; only their page numbers have been changed.

ABSTRACT

A student leadership program was implemented in an elementary school to increase the social value of constructive (appropriate) classroom behavior and to generate more positive pupil attitudes toward self and school. The specific aims of the intervention were to reduce the disruptive, negative behavior of some socially powerful students while increasing the rewards for more appropriate models and for teacher efforts to improve classroom climate.

The Ss were low-income Black elementary students in grades 4, 5, and 6. Eight teachers and 280 peers identified 64 actual or potential social leaders who were randomly assigned to experimental or control conditions. Teachers classified the Ss as generally positive or negative in attitudes and behavior.

The Leaders (experimental group) met with an advisor twice a week for four months to study school problems and to plan projects which might contribute to the development of a more harmonious and productive learning environment. Daily the Leaders implemented such projects as a Good Citizen Program, monitoring students, assisting administrators, and serving as teacher aides in kindergarten-primary classrooms.

The effects of the intervention upon attitudes of Leaders were determined by measures of self-concept, locus of control, social efficacy, and attitudes toward school. Periodically, subject behavior was rated by teachers and coded by naive observers.

Although ANOVA revealed few statistically significant changes in attitudes which were clearly related to the intervention, definite trends in the predicted directions were evident. Participation as Leaders did reduce the tendency of females and subjects with negative attitudes and behavior to become increasingly negative. Males, especially, increased their sense of efficacy and internal acceptance of responsibility. Leaders with teachers who were more supportive of the program often showed significant changes in attitudes and behavior. Experimental Ss' post-intervention self-reports on attitude measures were directly related to success as Leaders; i.e., the highest self-reports came from the most successful Leaders (as ranked by the experimenter). The most effective Leaders also tended to be those who ranked highest in peer nominations of social influence.

The results indicate that a leadership program can help students improve their behavior and maintain or develop more positive self-perceptions.

CONTENTS

Page

LIST OF TABLES ix

CHAPTER

I. THE PROBLEM 1

Origin of the Problem 1
Related Literature and Research 4
Application of Research to the Problem Situation 10

II. THE DESIGN AND PROCEDURES OF THE STUDY 15

An Overview of the Design 15
Selection of Ss and Assignment to Treatment Groups 20
The Independent Variables 22
Measurement of the Dependent Variables 24
Data Collection 33
Description of the Intervention 34

III. RESEARCH HYPOTHESES AND RESULTS 51

Measures of Self-Concept 52
Measures of Locus of Control and Efficacy 75
Measures of Attitude Toward School 93
Measures of Classroom Behavior 102

IV. POST HOC ANALYSES 124

Prediction Based on Peer Nominations 124
Comparison of Correlations for Experimental and Control Groups, and for Positive and Negative Subjects 127
Analysis of the Experimental Ss Grouped by Performance Rank 133
Subjective Analyses 139
Analysis of Some Individual Experimental Subjects . . . 143

V. GENERAL CONCLUSIONS AND DISCUSSION 146

General Conclusions 146
Discussion 148
Final Conclusions and Implications of the Study 160

BIBLIOGRAPHY 162

APPENDIXES

I-2. Gordon Self-Concept Measure 167
Description of the Use of Gordon's Instrument: Factors 169
Further Information of Importance Reported by Gordon 170
I-4. TAP Questionnaire on Sense of Social Efficacy 171
I-7. Reports of Tests of Reliability on All Attitude Measures Used in Analysis 172
I-8. Observation of Pupils 174
Definitions of Categories and Behaviors 175
Child Observation Schedule 180
Supplementary Observation Information for Individual Sample Children 181
Report of Inter-Observer Agreement Obtained Using the Pupil Observation Schedule in Classrooms Similar to Those in the Study . . . 182
I-10. Behavioral Rating Form T 183

LIST OF TABLES

TABLE		Page
1.	Content of the Leadership Meetings	48
2.	Means on Pre and Post Measures of Sears Social Relations for Males and Females	54
3.	Means on Pre and Post Measures of Sears Social Relations for Positive and Negative Subjects	55
4.	Means for GPSM Interaction on Sears Self-Concept for Social Relations	56
5.	The Number of Male and Female Subjects Reporting Self Higher or Lower on Post Measures of Social Relations	56
6.	Means for GPTM Interaction on Sears Social Relations	58
7.	Summary of ANOVA Results for Self-Concept Measures	59
8.	Means for Males and Females on Pre and Post Measures of Social Virtues	61
9.	Means for GPTM Analysis on Measures of Social Virtues	62
10.	Means Across Time on Social Virtues Category for Males and Females in Teacher Groups One and Two	64
11.	Means on Happy Qualities for Males and Females in Both Teacher Groups	65
12.	Mean Total Scores for GPTM Interaction on Special Focus Measure	69
13.	Mean Total Scores for Males and Females in Both Conditions, Pre and Post, on the Special Focus Measure	69
14.	Mean Total Scores for Significant Main Effects from ANOVA on Special Focus	70
15.	Means and F Values for ANOVA Based on Performance Rank	73

LIST OF TABLES (Continued)

TABLE		Page
16.	Mean Total Responses for Group by Time Interaction on Hess' Locus-of-Control Measure	80
17.	Mean Total Responses for GPTM Interaction on Internal Responsibility for Failure	81
18.	Mean Total Responses for GPTM Interaction on Total Internal Control	82
19.	Summary of ANOVA Results for Measures of Power and Efficacy	83
20.	Differences Between Positive and Negative Ss on TAMS:Power	84
21.	Mean Total Scores for Subjects by Teacher Group on TAMS:Power	84
22.	Mean Total Scores for TM Interaction on TAMS:Power	84
23.	Frequency Distribution of Subjects Ranking High or Low on Number of Peer Nominations	86
24.	Means for GSM and GPSM Interactions on TAP:Kids Listen	87
25.	Differences Between Positives and Negatives on TAP:Kids Listen	88
26.	Means and Variance for the Interaction Between Sex and Teacher Over Time on TAP:Teacher Helps	88
27.	Means for Sex by Teacher Interaction on TAP:Principal Helps	90
28.	Means for Interaction Between Teacher Group and Time on TAP:Principal Helps	90
29.	Means for GSM Interaction on TAP:Principal Helps	91
30.	Summary of ANOVA Results on TAMS	95
31.	Mean Total Scores for Subjects by Attitude on TAMS:Total	96

LIST OF TABLES (Continued)

TABLE		Page
32.	Mean Total Scores for Subjects by Sex on TAMS:Total	96
33.	Mean Total Scores for Interaction of Sex by Attitude on TAMS:Total	97
34.	Mean Total Scores for PSTM Interaction on TAMS:Total	98
35.	Mean Total Scores for Interaction Between Attitude and Sex on TAMS:Social	99
36.	Mean Total Scores for Interaction Between Group and Sex on TAMS:Social	99
37.	Mean Total Scores for Significant Main Effects on TAMS:Teachers	100
38.	Mean Percentages for Subjects by Attitude on Constructive Behavior	105
39.	Mean Percentages for Subjects by Sex on Constructive Behavior	105
40.	Mean Percentages by Teacher Group on Constructive Behavior	105
41.	Summary of ANOVA Results for Observed and Reported Behavior	106
42.	Mean Percentages for the GPSTM Interaction on Constructive Behavior	108
43.	Means for the PTM Interaction for BRF:Work	110
44.	Means for Group by Sex Interaction on Overall BRF Ratings	111
45.	Means for Subjects by Attitude and Teacher on Overall BRF	112
46.	Means for GPTM Interaction on BRF:Overall	113
47.	Mean Percentages for Subjects by Attitude on Destructive Behavior	114
48.	Mean Percentages for Subjects by Sex on Destructive Behavior	114

LIST OF TABLES (Continued)

TABLE		Page
49.	Mean Percentages for Interaction Between Teacher and Time on Destructive Behavior	114
50.	Mean Percentages for the GSTM Interaction: Destructive Behavior	116
51.	Means Across Time for BRF:Peers	118
52.	Means for Subjects by Attitude Across Time on BRF:Peers	118
53.	Means for Group by Sex Interaction Across Time for BRF:Adults	118
54.	Mean Percentages for the GPTM Interaction: Destructive Behavior	119
55.	Mean Percentages for Subjects by Attitude on Passive Behavior	120
56.	Mean Percentages for Subjects by Condition on Passive Behavior	120
57.	Mean Percentages for Subjects by Teacher Group on Passive Behavior	120
58.	Mean Percentages for Subjects by Group Over Time on Passive Behavior	121
59.	Mean Percentages for Subjects by Attitude Over Time on Passive Behavior	121
60.	Means on Selected Variables for Subjects Grouped According to Treatment Condition and Ranking Low or High on Peer Nominations	126
61.	The Performance Ranking of Leaders in Each Class	135
62.	Correlations of Performance Rank with Post Measures.	135
63.	Summary of ANOVA Results and Means for Subjects Grouped According to Performance Rank	137
64.	Percentage Occurrence of Selected Teacher Behaviors for Individual Teachers and Teacher Groups One and Two	159

CHAPTER I

THE PROBLEM

Origin of the Problem

The motivation to preserve or increase a sense of self-esteem is fundamental to individual human behavior and social interaction. Therefore, each individual in the school setting wants to perceive himself as: 1) a significant, valued part of the social milieu (e.g., the classroom); 2) able to maintain rewarding dyadic relationships with others who are significant to him (e.g., teachers and peers); and 3) able to acquire skills and knowledge needed for success in his environment (e.g., successful mastery of tasks, achievement). These motives underlie the behavior of both pupils and teachers in the classroom where the formal educative process is expected to occur.

To the extent that one experiences frustration and failure regarding any of these vital sources of self-esteem, coping mechanisms must be developed to reduce the personal discomfort. The time and energy required to cope with negative information about self-worth may leave the individual with an insufficient amount to invest in the formal learning process. When both teachers and pupils perceive classroom activities as sources of personal frustration and failure, educational objectives will not be attained. Furthermore, individuals will become bound to negatively reinforcing interactions which critically impair

the teaching-learning process. It was in response to reports from students and teachers of personal dissatisfaction and impeding negative interactions that this study was planned.

The school was a low-income elementary school with a 95 percent Black student population and a teaching staff which was 80 percent White, including only one man. The eight intermediate teachers (grades four, five, six) claimed that by fourth grade the behavior and attitudes of many pupils were very resistant to influence from teachers. Consequently, they were forced to invest more time and energy in disciplining disruptive behavior and trying to gain student attention than in actual teaching.

Before the opening of school in September, the teachers had participated in a five-day workshop conducted by researchers from the Stanford Center for Research and Development in Teaching. The content of the sessions had exposed them to alternative approaches in methodology and classroom management, especially focusing their attention on pupil needs for meaningful rewards for effort and improvement, and for opportunities to develop self-direction and problem-solving skills. Teachers had been sensitized to the needs of individuals regarding self-esteem and social efficacy. At the conclusion of the workshop, appropriate goals for improving the educational experiences of children in the school were proposed and adopted by the entire teaching and administrative staff.

By the end of October, however, the morale of many teachers was very low. At least half of them expressed intense frustration from

attempting to reduce discipline problems and aversive controls and to increase rewards and achievement motivation for pupils. Teachers described the classroom climate as one of continual social interaction among peers with excessive conflict and tension. Teachers were struggling to gain attention and control while many pupils persisted in "petty" interaction, such as "capping" ("put downs"), teasing (e.g., taking pencils), touching to incite reaction, moving around the room to gain attention, or fighting verbally and/or bodily. Classroom observation by members of the research staff confirmed this report. Teachers believed opportunities for pupil self-direction would only be exploited by students, resulting in more classroom disruption. They were beginning to return to former patterns of punitive controls and negative attitudes toward pupils.

In order to gain more precise understanding of pupil perceptions, random groups of four students were interviewed on videotape regarding their views of the school environment and suggestions for improving it. Also, all intermediate students were given a questionnaire entitled, Thinking About My School. Both sources of information indicated that the majority of children were not proud of their school, disliked the amount of fighting between peers, were disturbed by the chaotic or oppressive atmospheres of classrooms, and felt powerless to change anything. Many seemed to feel unrewarded by academic tasks, with little hope of achieving success. The interviews revealed that many felt incapable of maintaining a rewarding relationship with adults in the school and were most concerned about peer social relations.

Student comments clearly evidenced that the peer culture granted status to youngsters who exerted control over classroom events and social interactions.

Believing that the problems of negative pupil attitudes, disruptive behavior, and lack of effective teacher influence are common experiences in low-income or ghetto schools, it was considered important for the action-research project in the school to design and evaluate an intervention to help remedy the situation. Also believing that the problems were rooted in the motivational systems of individuals struggling to preserve self-esteem, the relevant social-psychological research was applied to the construction of an intervention intended to be a practical tool for teachers. Some of the most pertinent research is discussed briefly in the following section.

Related Literature and Research

Specifically, the basic problem being identified by many teachers and pupils reflected two needs: 1) to have more appropriate (constructive) classroom behavior, especially eliminating the disruptive influence of some social leaders who reduce teacher effectiveness and group productivity; and 2) to have more positive pupil attitudes toward school. It was believed that improved pupil behavior and attitudes would allow more positive responses to "learning experiences," thereby reinforcing teacher efforts to motivate achievement and improve the learning climate.

Theoretical Analysis of the Problem:

To understand more fully the classroom dynamics, one may apply the theory of social learning as set forth by Bandura (1969) and the specific theory of social interaction advanced by Thibaut and Kelley (1959). Both theories regard human behavior as the product of interaction between the individual and his environment. In the course of social development, a person acquires different modes of coping with environmental stresses and demands as well as locating sources of reward through social interaction. Accordingly, the individual or group will tend to engage in the behavior most rewarding or reinforcing. Therefore, when an individual is confronted by two alternative responses to a situation, he will tend to select the one which is most apt to result in a sense of personal success or worth. If a behavior is not reinforced at all, it is less likely to occur in the future.

With this concept of social learning, teacher-student relations are seen as relatively stable and circular, maintained by unconscious and intentional mutual reinforcements for role behavior (Schmuck, Chesler, Lippitt, 1966; Bower, 1961; Jackson, 1968). Within their respective roles, both teachers and students select behaviors which seem to maintain or increase self-esteem. For example, the teacher chooses between alternative styles such as those described as "Authoritarian-Controlling" and "Democratic with Shared Decision-making." Student alternatives might include compliance with teacher expectations and defiance or denegation of teacher authority and power to control him.

Resistance to Change. Where undesirable pupil behavior persists

in spite of repeated aversive teacher controls, one may assume that the consequences of the negative behavior are more reinforcing to the pupil than are the expected consequences of the alternative behavior desired by adults. Accordingly, the pupil is reluctant to abandon previously rewarding negative behavior for alternatives with less certain or valuable pay-offs. Likewise, when the teacher observes that certain pupils ignore her expectations unless she asserts aversive controls, she finds it very difficult to replace her controls with positive reinforcements to encourage alternative behaviors. This teacher response is especially likely to occur where, as in ghetto schools, classroom control has been the principal measure of teacher effectiveness (Cohen, 1970). Although the teacher may dislike the role of disciplinarian and aspire to more idealistic models of Teacher, often self-respect is better preserved by authoritarianism than by a role which risks loss of classroom control. The dissemination of power to students may result in chaos or Pupil Power dominating Teacher Power. Being a negative reinforcer, a powerful disciplinarian to be feared, commonly guarantees for the teacher some rewards of respect and status with professional peers, parents, and some students. A loss of classroom control threatens job security as well as professional respect.

Reinforcements for the "Problem Child." The disruptive student also is motivated to preserve self-respect and to gain or maintain status with peers. Furthermore, he seeks a position of power or respect in relation to adults. His behavior is governed largely by these motives.

To clarify the reinforcement situation for a student engaging in

repeated non-task behavior, one must consider first the potential rewards perceived by him as accruing from achievement behavior. The Black child may have learned from his classroom experience, or that of peers or siblings, that gaining meaningful and immediate rewards from on-task behavior is highly improbable. This lesson usually has been well learned when, after many years of schooling, children barely can read, are uncertain of their ability to put the correct heading on a paper, and repeatedly have failed to follow the directions of teachers which would have permitted a sense of accomplishment. The resulting low expectations for academic success can account for minimal effort by Black students to achieve and a lack of interest in achievement-related pursuits, regardless of promised "rewards" (Lefcourt and Ladwig, 1965). Furthermore, the lack of rewarding outcomes for achievement-oriented behavior frequently results in the individual renunciating the teacher's power within the classroom and developing primary reliance upon the peer group for success and satisfying relationships (Thibaut and Kelley, 1959).

To continue the analysis, the pupil alternatives of disruptive behavior, refusal to work, and subtle or direct challenges to teacher authority must be studied for their possible reinforcing qualities and rewarding social outcomes, apart from avoidance of expected failure. Research has indicated that aggression can take on status-conferring value; peer group approval is often more powerful than tangible rewards as an incentive for, and reinforcer of, aggressively deviant behavior (Bandura, 1969). The teacher's punitive controls, communication of

frustration, or ignoring of the disrupter may only heighten the effectiveness of the deviant's attention-seeking demonstration of power as he interferes with group progress or demonstrates his ability to elude institutional control and to influence classroom events. Weighing the probable outcomes of alternative behavior, the disruptive child has decided there is greater probability of meaningful rewards accruing from non-task social behavior than from striving for academic achievement.

The critical impact of disruptive or negative students upon classroom events can be explained by the "ripple effect" described by Gnagey (1967), or by "behavioral contagion" as presented by Lippitt, et al. (1952). According to these theories, high-powered deviants can influence negatively the perceptions and learning of audience peers, especially those contemplating or engaging in similar deviancies. Gnagey (1960) demonstrated that defiance of teacher authority by one pupil reduces teacher expertise in the perceptions of classmates, as well as decreasing the amount of factual learning. Thus, the student can be rewarded rather richly for highly defiant or challenging behavior. Public punishment can be a nominal price for the display of personal power and the status the individual perceives as gained from many peers--if not rewarding in itself for the extra "special attention" or time out of class. Gnagey worked in white middle-class classrooms. This dynamic may well be stronger in classrooms containing Black students and White female teachers, whose legitimate power may be seriously questioned by pupils.

It seems likely that a child who can produce disruptive "ripple effect" among peers and create fear and frustration in the authority figure is going to feel a sense of social power. The sense of efficacy gained through "destructive," as opposed to constructive, behavior which ignores or challenges authority appears to be very important to many youngsters in a low-income school. This can be expected where children are growing up in a community of adults "concerned with increasing personal and group efficacy in defense against a national environment in which they perceive reduced choices for cultural or material rewards" (Battle and Rotter, 1963).

The individual's sense of efficacy stems from perceptions of his relationship to the adults representing the "institution," to peers, and to the attainment of group-acknowledged goals (Rotter, 1966; Wittes, 1970). Not being a "pawn" controlled totally by others, especially Whites, is a critical value governing attainment of the prime reward, social status. Significantly, even those students described as very positive in attitude and constructive in behavior readily expressed the need for Blacks to gain social efficacy. The community of adults and children seems divided as to the best means of attaining social power. Some demand that Black power be seized by force. Others advocate Black power gained through the acquisition of necessary skills and ultimate positions of employment. But, all Blacks, as well as Whites, seem to value highly the power to influence others in the social milieu.

In the framework of social learning theory, the behavior of

disruptive, negative students is seen as maintained by the reinforcements of peer attention, social status conferred on the basis of power to influence, and personal sense of efficacy in controlling reinforcements in the environment--which include the efforts of teachers and administrators to terminate undesired behavior. For these students, the alternatives of achievement-oriented behavior and conformity offer no comparable reward in the vital areas of social recognition, perceived success, and sense of efficacy. Therefore, as teachers attempt to employ positive reinforcement and to reduce aversive controls, the student response often is abuse of the power granted and serious challenges to authority. Both teachers and pupils express discomfort with the uncertainty created by changing role behaviors and breaking the established cycle of mutually negative reinforcements.

Application of Research to the Problem Situation

In order to break the cycle, both teacher and pupil behavior must be modified because the two are interdependent reactions. Since response patterns can be modified only by altering the stimulus conditions that regulate their occurrence, teachers and disruptive pupils must find meaningful reinforcement for alternative behaviors which are more constructive toward the attainment of educational goals.

In the situation under study, the teacher in-service training program had attempted to alter the stimulus conditions of teacher behavior and classroom management. An intervention with students was necessary to increase rewards for teachers attempting to improve teacher-pupil relationships and to increase in the peer culture the

social value of constructive (appropriate) classroom behavior.

Modification of behavior could be expected to result in changed attitudes (Bandura, 1969). Small group research suggests that it is easier to change attitudes by changing behavior than to change behavior by changing attitudes (Lewin, 1951). The intervention, then, had to provide opportunities for students to be sufficiently efficacious and socially rewarded for constructive behavior so that former patterns of disruptive or passive behavior would become less attractive. As a consequence of those changes, negative attitudes might become more positive. Also desirable was an increase in social status and influence for students already manifesting more positive attitudes and demonstrating more constructive classroom behavior. It was hoped that those individuals could become more influential models of appropriate behavior, which would in turn generate a constructive "contagion" of peer influence (Lippitt, 1952).

Bandura reviewed the literature on modification of the attitudes and behavior of large groups of individuals in social establishments, such as education. He reported that success often depended upon group-managed contingency systems in which interpersonal reinforcers were favored over material rewards and group members rather than the staff served as the main reinforcing agents.

The field theory of Kurt Lewin addressed the same problem with similar methodology. Lewin (Loye, 1971) in the 1940's asserted the need for members of a group to see individuals succeeding at a new behavior, both to demonstrate its rewarding outcomes and to elevate the

self-esteem of the group, thus increasing the perceived probability for group success when engaging in the new behavior. The Lewinian approach to social change also stressed the necessity for group decisions to induce change and to create commitment to the group in carrying out planned change. Lewin and his assistants demonstrated that sustained increases in production and morale (both desirable in schools) were directly proportional to the amount of participation in decision-making, while the incidence of turnover ("drop-outs") and aggression (deviancy) were inversely proportional to the amount of participation in decision-making. From this framework, the intervention was designed.

Summary of the Problem Situation:

The basic problem can be summarized as an absence of rewarding outcomes for the rationally desired behaviors of teachers and pupils. A well-established cycle of negative mutual reinforcements existed in which teachers believed they were most rewarded for coercive control of pupils and students felt most rewarded for behavior providing diversion and relief from the academic task. In essence, a power struggle had resulted in many classrooms.

It was hypothesized from observations and interviews that two basic perceptions existed among students regarding power. One type of student perceived himself as powerless and the adults as all-powerful in the educational institution. His response was passivity or compliance with some hope for rewards resulting eventually from achievement efforts. Other students perceived the peer group as most powerful and virtually renunciated legitimate teacher power. This perception resulted in the

most defiant and disruptive classroom behavior. In either case, a healthy balance of power was not perceived.

Similarly, teacher self-perceptions tended to be focused upon: 1) personal struggling to gain power, with fear of being overwhelmed by student power to control classroom events--in opposition to teacher plans; or 2) struggling to retain teacher supremacy of power, with fear that student assumption of power would eradicate teacher influence and potential effectiveness.

In this struggle for power, the cycle of mutually negative reinforcements was being maintained. Teachers felt compelled to be coercive and students chose resignation of personal power or rebellion against teacher power. Classroom observers and teachers identified from 10 to 50 percent of the students as the rebellious, negative type. The disruptions of those students had a contagious effect, spreading negative attitudes toward both teachers and classroom activity. The students with more positive attitudes toward achievement tasks were frustrated and often ashamed of their peer culture. Low expectations of group success and a lack of pride in the school peer group were increased with each year of school attendance.

The Construction of an Intervention:

Applying social-psychological research related to motivation, leadership, and group dynamics, an intervention plan was outlined and proposed to the teachers. It was adopted with optimism. The intervention and research design, to be explicated in the next chapter, was intended to create a healthy balance of power between teachers and

pupils while increasing meaningful rewards for both. It was expected that teacher behavior would be modified through the in-service training sessions to allow an increase in constructive pupil power in the classroom. The specific intervention program for students was designed to develop the motivation and behavioral skills necessary to utilize successfully the opportunities for increased self-direction. It was assumed that by becoming involved in problem-solving and decision-making regarding school improvement, and by assuming responsibility for creating a more harmonious and productive atmosphere, students would obtain both social and achievement rewards for constructive behavior. Teachers also would be reinforced positively by student behavior for the dissemination of classroom power and the use of more democratic strategies. Pupil self-direction in the classroom would be fostered without loss of teacher influence and with increased professional esteem. As a consequence, attitudes of teachers and students would become more positive.

CHAPTER II

THE DESIGN AND PROCEDURES OF THE STUDY

An Overview of the Design

Although this study was conducted as an action-research project in the field setting, it was based upon an experimental design in order to maximize accuracy in the analysis of results. There was a conscious effort to combine the research benefits of both approaches: the relevance and flexibility of action-research plus the rigorous controls of experimental design. The study can be classified legitimately as action-research because the intervention was designed and modified during its implementation through interaction between the researcher and the teaching and administrative personnel. The basic steps in the process of structuring the intervention were: 1) identification of the needs by the students and faculty; 2) exploration of alternative methods of meeting the needs, as presented by the researcher; 3) agreement upon an approach or methods to test; 4) development of detailed plans of implementation by the researcher, subject to continual evaluation and suggested revision by the teaching staff. As the researcher synthesized input and structured a proposed plan of action, the elements of experimental design were carefully included and explained to the teachers. Consequently, the design involved random assignment of Ss to experimental and control groups, systematic guidelines for selecting and

classifying Ss, careful selection or construction of appropriate instruments to gather objective data, and rigorously controlled methods of data collection.

The intervention took the form of a Leadership Program involving four students chosen for leadership capabilities from each of the eight intermediate classes. The 32 participants met twice a week in "Leadership Meetings" and daily carried out tasks or projects that might contribute toward the betterment of the school. Designated as "Leaders," representing about 250 classmates, they studied the school "problems" and sought constructive changes in the interpersonal relations within the school that might result in a more productive and harmonious environment for learning. Each group contained an equal number of males and females, and students nominated by teachers as usually positive or negative in their attitudes and behavior. All 32 participants were considered by their respective teachers to be actually or potentially influential with peers and capable of effective leadership.

The total number of Ss in the study was 64. Eight students with leadership ability were identified in each of the eight intermediate classrooms by methods to be described in the following section of this chapter. The Ss were randomly assigned to experimental ("Leaders") or control ("non-participants") conditions. The 32 control Ss were not a "pure" control group because their behavior and attitudes were subject to influence from the Leadership Program which solicited the involvement of classmates in discussions and projects. However, the control Ss provided a means of comparing experimental Ss with similar individuals

under the same classroom conditions to indicate the specific effects of participation in the structured intervention. Ss in both conditions were social leaders who participated in classroom activity related to the self-improvement program initiated by the Leaders (experimental Ss) and interacted with their teachers in regular classroom activities.

The basic questions posed by the study were: 1) Can the disruptive, negative behavior of some socially powerful students be significantly reduced in frequency or extinguished through the provision of structured opportunities to gain peer attention, social status, and a sense of efficacy in ways more constructively influencing the classroom environment? 2) Will participation in a Leadership Program create more positive attitudes toward school and self (self-concept and sense of efficacy, locus-of-control)?

Student classroom behavior, as a dependent variable, was assumed to be interdependent with the motivational variables of student self-esteem and sense of efficacy. These two motivations were believed to account for a sizeable amount of the variance in pupil behavior. Therefore, if behavior was changed significantly by the intervention experience, measures of self-concept and efficacy should reflect similar changes. Changes in behavior and self-attitudes should be related to complementary changes in attitude toward school, also. To measure the effect of the intervention, multiple measures were employed and theoretical subgroupings of items on measures were used to gain specific information.

The resulting design of the study was a 2^5 mixed design with

THE VARIABLES

(Symbols used in the analysis of data are provided in parentheses.)

INDEPENDENT VARIABLES

(S) Sex

(P) Teacher Perceptions of Student Behavior and Attitudes as basically Positive or Negative

(T) Teacher Group

- Actual Peer Nomination
- Performance Rank as a Leader
- Teacher Forced Academic Rating (TFR)

(G) INTERVENTION CONDITIONS

- Participation in the class group and in the Leadership Group (E)
- Participation in the class group only (C)

DEPENDENT VARIABLES

Observed Classroom Behavior

Teacher Perception of Student Behavior as specifically rated on a scale, BRF

Self-reported Attitudes:

- toward school--TAMS
- toward self--Sears, Gordon
- Locus-of-Control--Hess
- Sense of Efficacy--TAP

SCHEDULE OF DATA COLLECTION

October: Week 1	Week 2	Week 3	Week 4
Teacher identification of leaders; classification as Positives or Negatives	TAMS: all classes, grades 4, 5, 6 Peer Nominations BRF completed by teachers	SEARS, HESS, GORDON, TAP: all 64 Ss in two different testing periods	Classroom observations: all E and C Ss for a minimum of 48 rounds
November: four weeks	**December:** two weeks	**January:** four weeks	**February:** two weeks
Phase One of Intervention	Phase Two of Intervention	Phase Three of Intervention.....	
Evaluative Interviews with teachers and Leaders	Second Classroom Observation of all Ss	Individual Interviews with Leaders Second BRF completed TFR obtained	Third Classroom Observation Teacher Interviews TAMS: all classes Peer Nominations
Late February	**March**		
SEARS, HESS, GORDON, TAP: all 64 Ss	Fourth Classroom Observation Third BRF completed		

the dependent measures being repeated two to four times. The design is summarized in outline on the previous page. Ss were classified according to the independent variables of Intervention Condition--experimental or control (G), sex (S), Positive or Negative attitudes and behavior (P), and membership in a class belonging to one of two teacher groups (T). Ss also were classified and blocked (Kirk, 1968) for the significant subject characteristics of actual Peer Nominations of social influence and Performance Rank (experimental group only). These last two variables were used only in post hoc analyses and were not included in the basic design structure. The teacher's forced rating of students as to academic standing in the class (Appendix I-11)† was used only for comparison with reported teacher perceptions of subject behavior and attitudes.

Dependent variables to determine the effectiveness of the intervention included multiple measures of behavior and attitudes. Classroom behavior was observed systematically and teachers reported the frequency with which experimental and control Ss exhibited specific desirable or undesirable behavior (BRF). Ss reported their self-concepts on two instruments (Sears and Gordon), their sense of personal efficacy (Hess, TAP) and their attitudes toward school (TAMS). The instruments will be described in greater detail in the later section on measurement of dependent variables.

Before explication of the variables and the methods of assessment, it is important to understand the method by which Ss were selected and subsequently classified according to the characteristics

†This appendix has been omitted; see p. iv for more information.

briefly identified above.

Selection of Ss and Assignment to Treatment Groups

The methodology of the intervention was to involve in active problem-solving those students who were, or had the potential of being, powerful influences upon the behavior of classmates. Therefore, the first step in the selection of Ss was identification of such social leaders in the classrooms. A leader was simply defined as "one who can get others to follow him." Lists were submitted by teachers to the experimenter, often with annotations as to the type of qualifications possessed.

Because it was desirable both to elevate as models those students exemplifying constructive student behavior and to provide Negative students with opportunities to develop more constructive means of obtaining social recognition, the next step involved classification of students as usually Positive or Negative in attitudes and behavior. (See Appendix I-12 for the sample form.) It was considered desirable also to have an equal proportion of males and females participating in the program. Accordingly, the teachers were asked to read descriptions of both the Positive and Negative types of student, to look at their class lists and rank order three to six girls and boys of each type. The teachers were then to note those students who could be regarded as social leaders influencing the behavior of others or having the potential of becoming effective leaders. Some problems occurred when a few teachers did not perceive any Positive boys or any Negative girls in their classes. One class had only eleven girls, so identification of

four leaders was most difficult and somewhat artificial. Although some students did not fit the descriptions as well as others, teachers seemed convinced that all would benefit from the program and the basic differences between the Positive and Negative attitude-types were valid for all Ss.

Before the selection of leaders was finalized, Peer Nominations as to "who can get you to do the most" were obtained (Appendix I-13). Teachers were shown the number of nominations received by each person on the tentative list of leaders. In some cases, teachers who had difficulty choosing between two individuals made the choice on the basis of peer support. Where students identified by teachers as leaders received few or no nominations, the teacher was asked to reconsider her recommendation. Only a few changes were made.

A final list of Ss was composed. Eight students were selected from each class: two Negative females, two Negative males, two Positive females and two Positive males. The matched pairs of leaders in each class were divided by random assignment between experimental or control conditions. The teachers were told that the students were being divided into two groups: one to participate in the program in the fall semester, the other to participate in the spring. It was requested that the spring group remain unaware of their selection. This plan was carried out. However, two changes from control to experimental conditions were made under teacher pressure to obtain some immediate help for two students. This type of action was regarded as necessary to maintain the integrity of the action-research project.

Because the selection of Ss was based upon teacher recommendations, it was important to know how similar the experimental and control groups were in actual social influence. According to Peer Nominations in October, the two groups were not significantly different. Each subject was classified according to the number of Peer Nominations: 0 for none, 1 for one, 2 for two to five, 3 for six to nine, and 4 for ten or more nominations. Summing the "scores" of Ss in each condition, the experimental group totalled 90 points as compared to 82 for the control group. Three Negative Ss, one in the control group and two experimental Ss, received no nominations. Two Negative Ss, one in each group, received only one nomination. Some classes did show more diffused power among peers while many classes had a few "star" students and many "isolates."

The selection of Ss resulted in a total N of 64, 32 experimental and 32 control Ss. Within each treatment condition there were 16 Ss classified as Positive or Negative, 16 males and females, and 16 Ss who were members of each Teacher Group. Blocking Ss on all independent variables resulted in four Ss per cell.

The Independent Variables

The preceding discussion of the method of selecting Ss included definitive descriptions of the independent variables of intervention condition (G) and Positive or Negative attitudes and behavior (P). The initial use of Peer Nominations was described also. The independent variables not yet defined in detail are those of Teacher Group and Performance Rank. More information regarding Peer Nominations will be

presented in this section.

Teacher Group:

During the course of the intervention, teacher behavior was recorded in formal meetings and informal gatherings generally indicating evidence of response to the Leadership Program--supportive, neutral, or resistant. At the conclusion of the intervention, the four school administrators and the four Stanford researchers working with the staff were asked to rank order the eight intermediate teachers according to their exhibition of teaching behavior supportive of the aims of the program (see form in Appendix I-16). Records of behavior were not seen by anyone other than the experimenter. There was 80 percent agreement between the independent rankings with three out of four teachers in each group being assigned to the same group by all eight evaluators. The two groups designated were comprised of those ranked highest in support (Teacher Group One) and lowest in support (Teacher Group Two). The Ss then were classified according to membership in the class of a teacher in one of the two groups.

Performance Rank:

This variable existed only for the Experimental Group. It was intended to help answer the questions, "Was the effectiveness of the treatment dependent upon the individual's success in the Leadership role?" and "What were the characteristics of those Ss helped most by the experience?" During the intervention each subject was rated continually by the experimenter according to easily observed indicators of

quality of participation: regularity of attendance at meetings, promptness, appropriate attentive behavior, completion of task. Additional reports from the teacher and student self-reports were obtained periodically (Appendix I-15). The 32 experimental Ss were ranked on the basis of the recorded information both for participation in the first and second halves of the intervention. The two rankings were averaged to obtain a final Performance Rank. The 32 Ss then were divided into four ranked groups: "1" representing the highest level of performance; "2" including those next in consistent quality; "3" comprised of more inconsistent or passive participants; and "4" including those Ss who became very inactive or unwilling to assume further responsibility.

Peer Nominations:

A member of the Stanford research team presented each class with a list of student names. He requested that each pupil list the four classmates who "can get you to do the most" (see Appendix I-13). Teachers were asked to predict the outcomes of the Peer Nominations for comparison with previous identification of leaders within the class (Appendix I-14). For use in data analysis, each subject was classified as high (more than 6) or low (0 to 5) in number of nominations received.

Measurement of the Dependent Variables

Due to the exploratory nature of this study and the complexity of the variables involved, multiple measures were employed to assess carefully various facets of each variable. Every effort was made to

use instruments appropriate and accurate for the subject population. Three instruments were field-tested in the student population by the Stanford research staff: the Sears Self-Concept Inventory, the Hess-Shipman Locus-of-Control measure, and the Classroom Observation Schedule for teacher and student behavior. Three other instruments were constructed by this experimenter to gather responses to specific questions relevant to the Leadership study: the Teacher Behavioral Rating Form (BRF), the Thinking About My School inventory (TAMS), and a questionnaire requiring thought about personal power to gain response from others (TAP). One instrument, Ira Gordon's How I See Myself self-concept inventory, was borrowed from research in Florida with low-income elementary students (Gordon, 1968). The individual instruments and their use are described briefly below. Tests of reliability are reported in Appendices I-7 and I-8.

Instruments Assessing Self-Concept:

Sears Self-Concept Inventory (Appendix I-1). This is a 48-item inventory which asks the student to compare himself with others of the same sex and age. Beside each descriptive phrase, the subject is to respond by placing himself on one of five comparative points on a weighted scale: not so good (1), OK (2), better than most (3), very good (4), and excellent (5). All items are positive concepts. The highest possible item score or mean response on all items is 5.0; the lowest possible score is 1.0. Students in this population have reported slightly higher self-concepts on this instrument than in neighboring white, middle-class populations (Sears, 1963; 1973--in process).

The inventory is divided into theoretically integrated subareas of self-concept. The scoring sheet (Appendix I-1) indicates all nine subareas and the items contained in each. For this study, the items related to social self-concept and to work habits were considered most relevant to the intervention. Scores on self-concept for social relations, social virtues, work habits and happy qualities were selected for analysis, as well as the total self-concept score. The Social Relations items deal with having friends: e.g., "Being a leader--one to get things started." The Social Virtues subarea involves sensitivity and cooperation: e.g., "Being easy to get along with." Work Habits contains only four items but they are very explicit: e.g., "Spending most of my time on my work, not goofing off." Happy Qualities is another four-item category of response: e.g., "Enjoying myself in school."

The Gordon Self-Concept Measure (Appendix I-2). In contrast to the comparative rating requested of the subject on the Sears inventory, the Gordon measure has been titled, "How I See Myself," and asks the subject to indicate where he personally sees himself on a five-point scale between two opposite statements: e.g., Nothing gets me too mad . . . I get mad easily and explode. Because of the reversed position of negative and positive statements, scoring requires reverse weighting on those items so that "1" always represents the least positive perception of oneself and "5" reflects the most positive view.

Careful examination of the results of factor analysis reported by Gordon (1968) did not indicate that the most relevant information

would be gained through use of his factors. The total mean score would be useful as a global measure but it was considered a less sensitive measure of treatment effect in this study due to the inclusion of many items pertaining to physical and academic self-concept. Therefore, items were examined for their direct relevance to the intervention, in accordance with the assumption that the more specific the question and related to the intervention experience, the more accurate and informative would be the response. Those items selected numbered 17 of the total 40 and included all of the items on Gordon's Teacher-School factor, half of the items loaded on his "Interpersonal Adequacy" factor, and two items related to work habits (see Appendix I-2). This group of items was labelled "Special Focus" and the summed responses on the 17 items were used as measures of specific self-concept, in addition to the Total mean response on the Gordon measure.

The Hess-Shipman Locus-of-Control Measure (Appendix I-3). This measure was constructed to assess whether children in low-income schools perceive themselves as "pawns" subject to Fate Control or as personally able to control the reinforcements resulting from classroom behavior. The questionnaire includes 16 items, 12 of which pertain directly to academic success or failure. Four items pertain to social behavior. An example of an item is: "Why did the teacher say you didn't do very well today? a. Because the teacher was mad at me. b. My work was very sloppy." The focus of the items is upon how much responsibility the child assumes for success or failure; does he relate personal effort and responsible behavior to the outcomes of success or failure

rather than project the blame or give credit to other influences in the environment? The score used for "Total I" equals the number of items for which the subject gave responses indicating belief in personal internal control. "I-" scores equal the number of internal responses on failure items. Because of the nature of the problem being studied, i.e., the quality of interpersonal interaction and social climate in the classrooms, the adequacy of this measure which largely focuses on academic life was uncertain. For this reason, a more specific measure to assess perceived social efficacy was constructed.

TAP Questionnaire (Appendix I-4). The first part of the questionnaire poses three simple questions regarding efficacy in the classroom: being able to get someone to stop doing something you dislike in the classroom, getting peers to do what you want at recess, and effort on schoolwork paying off. The questions requested a "yes" or "no" response, which may account for the fact that responses did not discriminate between Ss sufficiently to be useful. In the second part of the questionnaire, the student was asked to think about types of people in the school environment and to rate each according to the person's usual response to the subject's desire to be listened to carefully or to be granted permission and help in carrying out a plan or developing an idea. A response of "1" indicated "never," "2" meant "once in a while," "3" represented "often" and "4" designated "always." Students tended to give each type of person the same rating on both the questions of listening and helping. Only the responses

to the following items were used in the analysis of results: Kids listen; My teacher helps; The principal helps. Responses regarding parents, a special friend and "other adults" were not used in the data analysis.

It should be mentioned that measures of locus-of-control or sense of efficacy are based upon a variable not yet clearly defined. The specific measurement desired in this study was perception of personal power to influence and gain response from others in the school setting. The TAP questions were an effort to gain that information most directly. The responses of Ss to TAMS (Thinking About My School) items which pertain to the power of students to influence events at school were added to the information from TAP in an attempt to gain a clearer picture of subject sense of efficacy. The results from Hess' measure were used as a more generalized perception of internal versus external locus-of-control which related more to academic aspects of classroom behavior. TAP and TAMS: Power related to perceived efficacy in social interaction--being heard and respected by others:

Assessing Attitude Toward School:

Thinking About My School (TAMS) (Appendix I-6). This is a 47-item inventory composed of simple statements regarding school experience. The subject was instructed to read each sentence with the administrator, and to mark whether he considered the statement to be true not at all, once in a while, often, or all the time. The items were scored with the most positive response being weighted "5" and the least positive response weighted "1."

The items are divided into theoretically integrated subareas or "factors" which measure attitudes regarding social efficacy (Power), social relations with peers (Social), work conditions and tasks (Work), characteristics of teachers (Teachers), and a more general attitude called Liking for School. (See Appendix I-6e for items included in each factor.)

Assessment of Classroom Behavior:

Child Observation Schedule (Appendix I-8). This schedule was developed and field-tested by the experimenter and fellow researchers as a complementary accompaniment to the Teacher Observation Schedule developed earlier by the Stanford research staff (Sears, 1972). The schedule is divided into six categories of information but only the content of the child's behavior has been used in analyses for this study. The Content category identifies the basic nature of the pupil behavior in light of the goal intended by the teacher for the period observed. Each observed behavior was specified as constructive, destructive or passive in relationship to the apparent educational objective of the teacher. The author acknowledges with regret that the terms "constructive" and "destructive" may convey connotations not intended. The reader is encouraged to examine the detailed definitions in Appendix I-8b. "Constructive" behavior was identified essentially as that which contributes toward the attainment of the teacher's goal of academic learning, procedures to be completed, or social cooperation. Behavior which was considered to be interfering with the individual's or group's accomplishment of the recognized teacher goal was classified

as "destructive." Behavior which could not be described by the previous two categories was labelled "passive" and primarily included neutral acts.

The schedule was used by experienced teacher-observers who were trained over a two-week period both in the laboratory and in actual classrooms similar to those to be observed. The observers were trained to sample pupil behavior in a systematic way by closely observing one student for 30 seconds, recording his behavior in all six categories, and then immediately commencing observation of the next student. The observers were given a notebook containing photographs of each child to be observed in a classroom and a record sheet for each individual (see Appendix I-8g). Before entering the classroom the observer randomly shuffled the eight sheets and then observed the students in that order for the following period of one or two hours. Each behavior observed was called one "round" and an average of 50 to 61 rounds was obtained per subject during each of the four scheduled observation periods. The frequencies of each type of behavior (constructive, destructive or passive) were converted into percentages of the total observations obtained on a subject. The three "scores" for subject behavior during each of the four periods, therefore, cannot be considered independent measures.

Absences from school prevented collection of the desired number of rounds on a few Ss during each period except the post-intervention observation. Estimates for the missing data were calculated for ANOVA. The question of how many rounds are required to provide an adequate

sampling of behavior remains unanswered. Feasibility governed the extent to which individual observations were obtained.

During the final stages of training, there was .82 to .95 agreement per category between observers viewing the same behaviors. On the specific category being used in this study the agreement was .94 to .95 on each of the four occasions of reliability testing (see report in Appendix I-8i).

A Supplementary Observation Form was completed at the end of each two-hour period of classroom observation (Appendix I-8h). These forms and less objective anecdotal records of pupil behavior were used in more informal analysis and interpretation of findings.

Measurement of Teacher Perceptions of Student Attitudes and Behavior:

The Behavioral Rating Form (BRF) (Appendix I-10). This form consists of 32 behaviors regarded as significant in relationship to the problem defined by teachers and to the purpose of the intervention. Items included both desirable and undesirable student behaviors. It was requested that the teacher rate each of the eight Ss according to the frequency with which he exhibited the behavior: never, seldom, occasionally, frequently, or continually. Responses were weighted in relation to the desirable behavior, "1" being most undesirable and "5" being most desirable. The teachers were told that the purpose of these forms was to measure the effects of participation in the new program and to study the behaviors of leaders not participating in the Leadership Program during the first term.

Data Collection

The schedule for data collection was presented earlier in this chapter. Attitude measures were administered pre- and post-intervention, teacher Behavioral Rating Forms were obtained mid-intervention in addition to pre and post, and classroom behavior was observed a total of four times.

Testers were experienced teachers selected for qualities of competence and personality considered essential for effective testing in the student population. Procedures were standardized and efforts were made to maximize the conditions for optimal "test performance." All attitude measures but the TAMS were administered, two at a time, to small groups of six to eight Ss in a small counseling room. Testers arranged testing times with the teachers and withdrew Ss from the classrooms for periods of 30 to 50 minutes. Guidelines for administration of the instruments are provided in Appendix I-5.

The TAMS questionnaire was administered by members of the Stanford research staff and standardized procedures are provided in Appendix I-6g. This inventory was given to the entire class by two "testers" who read the items aloud and monitored individuals needing assistance.

Two weeks at the end of February were used to obtain post measures on the self-report attitude inventories. This was after active participation in the intervention had ended and before new participants for the second semester were to be announced.

The classroom observations were obtained at critical points: prior to any intervention, at the beginning of Phase Two, at the end

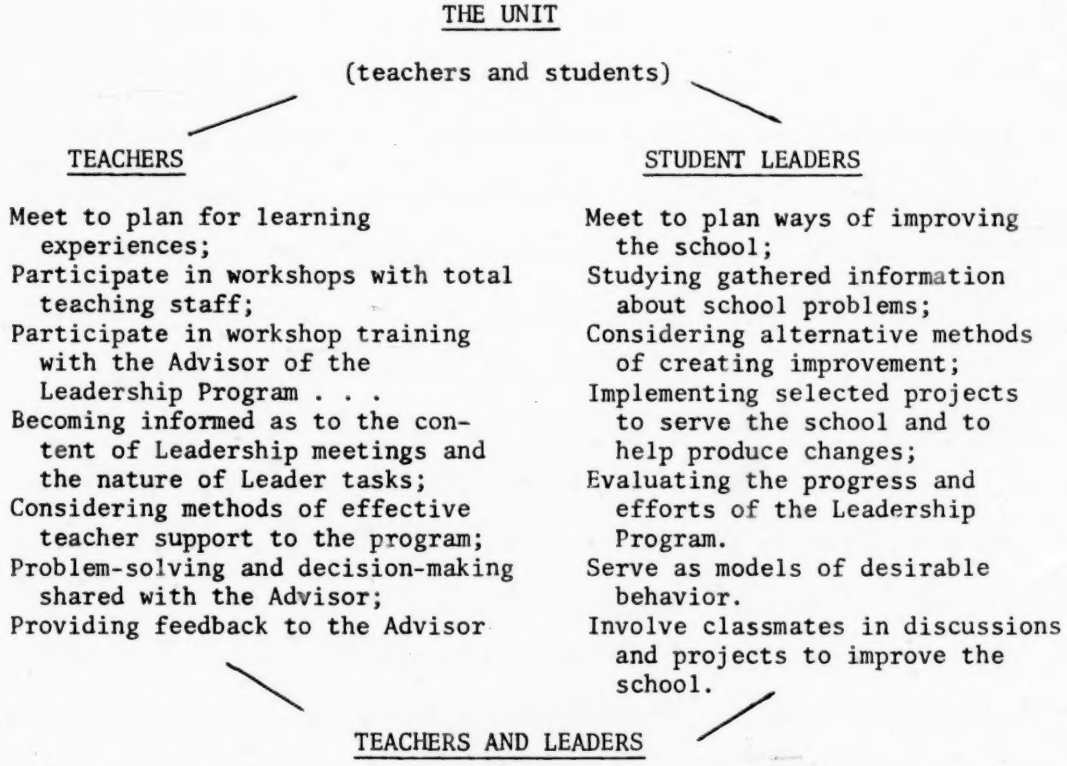
of Phase Three when level of performance was expected to be most changed and stabilized, and a month after the conclusion of the intervention. The post measure reports behavior after new participants in the intervention had assumed their roles. The BRF was intended to coincide with each of the four classroom observations, but teacher delay in returning them resulted in only one rating being completed in addition to pre and post reports.

Description of the Intervention

As was described in Chapter I, this study evolved out of the expressed needs and dissatisfactions of the students and teachers in the school. It was a complementary adjunct to the in-service teacher education project being conducted for the school by four researchers from the Stanford Center for Research and Development in Teaching. It was conceived as a supportive component of the in-service program, involving direct work with the students which was hoped to facilitate effective use by teachers of techniques of instruction and classroom management being advocated in the workshops. A major goal of the researchers was to increase the communication and positive reinforcement between students and teachers. This intervention was expected to be instrumental in the attainment of that goal.

The Leadership Program included 32 students but most of the meetings were held in two groups of 16, with four classrooms represented in each. The location and structure of the sessions are described in detail in Appendix II-5. The school had been divided into five "units" of teachers and students for the purpose of cooperative teacher team

planning and teaching. The relationship of the student Leadership groups to that organizational structure and the related in-service workshops for teachers is diagrammed below:


THE UNIT
(teachers and students)
TEACHERS
Meet to plan for learning experiences;
Participate in workshops with total teaching staff;
Participate in workshop training with the Advisor of the Leadership Program . . .
Becoming informed as to the content of Leadership meetings and the nature of Leader tasks;
Considering methods of effective teacher support to the program;
Problem-solving and decision-making shared with the Advisor;
Providing feedback to the Advisor
STUDENT LEADERS
Meet to plan ways of improving the school;
Studying gathered information about school problems;
Considering alternative methods of creating improvement;
Implementing selected projects to serve the school and to help produce changes;
Evaluating the progress and efforts of the Leadership Program.
Serve as models of desirable behavior.
Involve classmates in discussions and projects to improve the school.
TEACHERS AND LEADERS
Meet as needed to communicate and agree upon proposed changes, plans, concerns

As the diagram illustrates, the intervention was perceived by the research staff as inextricably related to the teacher in-service project. Because of the expressed desire of the teachers for assistance with developing constructive student leadership and their pledged support of the proposed intervention, the experimenter began this project

assuming there would be the type of interaction implied in the diagram above. Communication and cooperation between student Leaders and teachers was expected to be facilitated through regular meetings. During workshops the teachers were to identify methods of effectively giving support in the classroom to the program they had voted to have. In this way it was hoped that a new cycle of positively reinforcing teacher-student interactions would develop. In a sense, the intervention was comprised of three interrelated parts: the program for the student Leaders, the supportive role of teachers, and the cooperative planning and evaluation by Leaders and teachers. A Leadership Advisor would serve as the catalytic agent and organizer of each aspect. (See Appendix II-1 for detailed description of the Advisor's role.)

The methodology of the intervention was modelled after the approach advocated by Lewin (1951; Loye, 1971) and Sherif (1961) in which group members are kept unaware of the experiment, the problem is posed in a natural setting, and individuals are encouraged to study and discuss <u>their</u> problems and alternatives, to make <u>their</u> decisions, to evolve and carry out <u>their</u> plan. Accordingly, a basic approach was planned by the experimenter but the specific content and direction of the intervention experience was determined by the process of group decision-making, selection of alternative methods, and continual evaluations of progress both by the Leaders and the Advisor. Anecdotal records of most sessions will be found in Appendix II. The record of a session includes a planned agenda or objectives and descriptions of the actual events in each group. Tape recordings of each meeting are available

from the author. Major decisions occurred very similarly for the two groups of Leaders; however, the comparative quality of response to the agenda was often markedly different (see Appendices II-4 and II-7).

Phase One: Organizing, Gathering Information, Stating a Goal:

Three phases with distinctly different emphases emerged as the intervention was implemented. The activities of Leaders during Phase One, which was pre-planned by the experimenter, focused upon becoming organized, engaging in problem-solving, and establishing the "Leader" as a position of significant social status and responsibility in the school. Organizational tasks involved clarifying the purpose and po tential influence of such a group, learning how to participate in an organized group meeting, and making decisions about a name and emblem. They learned how to use an agenda, how a Chairman may conduct a meeting, and how to listen to others and wait to be recognized to speak.

The problem-solving task of the Leaders began with gathering opinions as to how individuals thought the school could be improved. During the days they interviewed students and adults, recording in a pocket notebook comments on what was liked and disliked regarding school to be reported in Leadership Meetings. During the first four sessions, Leaders heard individual reports of interviews and personal observations, studied student responses to the questionnaire administered (TAMS) to all students the previous spring, and discussed possible causes and solutions to "problems." Gradually they learned how to engage in problem-solving and decision-making as a group. They also were trained by the Advisor in simple techniques of leading discussions.

To enhance the social status of Leaders, the responsibilities and privileges of being Leader, plus the fact that selection was based primarily upon Peer Nominations, was explained to each class by the Advisor. The students were told the purpose of the program and the method of operation: that the objective was to improve the school according to the wishes of pupils and teachers, and that Leaders would report the opinions of classmates to the Leadership Group which would be selecting projects (see Appendix II-6). It was announced that each Leader would be excused from class for an entire day in order to "shadow" an administrator in the school. As a "shadow," the Leader would observe the problems encountered in the administrator's work and discuss with him how students might help improve the school. The classmates were informed that the Leaders would be taking a field trip to the municipal council chambers to hear a councilman speak to them about the importance of leadership and the need for student help in the community war on crime, which had just been declared. Students were told their class Leaders would report to them about their experiences. These privileges and responsibilities were explained also to their parents at a "tea" one afternoon during which the Leaders served refreshments.

In an effort to develop student self-direction in the meetings, before each session the Advisor asked one of the more capable Leaders to serve as Chairman of the Day. It was the Chairman's responsibility to collect the Leaders for the meeting, reminding them of what to bring, and to conduct the meeting from an agenda suggested by the Advisor. He also was asked to remind the group of standards of behavior when

necessary. The Advisor met with the Chairman about ten minutes before the meeting to clarify his role. Most Leaders were very uncomfortable and ineffective as Chairman. It was obvious that they had not previously experienced such responsibility, so basic skills were lacking. Furthermore, peer pressure in one of the groups made it a very difficult and unrewarding task. It was necessary for the Advisor to assume a much more directive role with the one group than had been planned due to the lack of readiness of Leaders to be more self-directive (see Appendix II-1).

During this phase the Leaders gathered information to define the existing problems and to identify possible ways of improving the school. By the end of two or three sessions, it was agreed by all Leaders and classes that the main problems were too much fighting among peers and too many unkind words and acts inciting conflict. The Leaders continued to identify causes and to clarify specific kinds of undesirable interaction. After three weeks of data gathering, the Leaders announced the goal of reducing fights and unkind words among students in the school. The next task was to solicit and to explore more detailed ideas of what changes could occur in the school to accomplish the goal. This task introduced Phase Two.

Phase Two: Selecting and Implementing a Plan to Meet the Goal:

Before describing the content of sessions in Phase Two, it should be mentioned that during this first month of the intervention the experimenter was confronted repeatedly with the fact that both teachers and students resisted the idea of meeting together to communicate.

Teachers expressed feelings of being too tired at the end of a teaching day to face such meetings and students were reluctant also, evidencing much discomfort with the idea and the expectation of unpleasant encounter. After the Leaders had selected a plan of action, the Advisor considered it mandatory for the teachers and Leaders to discuss the plan and pledge mutual support. The meeting was called. After a very unsuccessful effort to hold such a meeting, the Advisor agreed to not force it in the future and to serve as a communication link between students and teachers. This decision was unavoidable but considered by the experimenter to weaken the intervention designed to include cooperative decision-making and communication between Leaders and teachers as a vital component.

In the seventh Leadership session, the group agreed upon a plan to attain the goal of fewer fights and unkind words among students. The Advisor focused their attention on possible motives behind fighting and verbal hostilities. She introduced to them the belief that individuals are motivated to do that which is most rewarding to them. The group explored the concept in relation to undesirable student behaviors previously cited by them. The Leaders firmly agreed that social rewards for constructive behavior would have to be increased in order to encourage any changes in behavior. Out of the sharing of ideas, the Advisor outlined several ways of applying the principles of behavior modification or a reward system to the problems of fighting and unkind words. There was enthusiastic response from the Leaders.

In subsequent sessions, the Leaders compiled suggestions for

meaningful rewards, talked to classmates about the ideas, and organized for action with a specific plan. In December the Leaders distributed Good Citizen Records to all students and the Advisor, upon request from teachers, explained to the classes the guidelines for maintaining the record and earning rewards (see Appendix II-6). Under the plan, each student was to give himself one point on his chart after every hour during which he participated in no fighting and one point for saying no unkind words. The teachers had suggested including one bonus point for preventing a fight and one for building good feelings or setting an example. The student was to tally his points each day. If he had earned 60 percent of the total possible from Monday to Thursday, he would have earned admission to the "Good Citizens Reward Activities" for two hours on Friday afternoons. The activities selected by the votes of all classes were arts and crafts, drama, cooking and sports. Teachers agreed to plan to provide the activities in their rooms but, at the last minute, several refused to be responsible for the activities due to "exhaustion created by the pace of completing all the other holiday events." (See Appendix II-7.) A full-length feature film was shown instead and many students were very disappointed. This was a critical event in the development of the Leadership Program.

Both teachers and students expressed desire to try the original Good Citizen plan again in January. However, the experimenter was concerned with the excessive frustration and tension created by efforts to carry out the massive plan for the two weeks attempted. Teachers forgot to allow time to mark the records, and students were tempted to

record points dishonestly when under pressure. Students wanted the reward activities promised and teachers wanted someone else to provide them. In the judgment of the experimenter, it was too complex a plan for most individuals in the school. Therefore, the plan would not accomplish its purpose of reducing fights and bad feelings--at least not without adding negative consequences of tension and temptations to be dishonest.

Modification of the Intervention. During Phase Two it became increasingly evident to the experimenter that the teachers had endorsed the planned Leadership Program without emotionally committing themselves to full support of the Leaders through contribution of time and energy. About half of them were resenting the out-of-class time necessary for meetings. None of them wanted to prepare for a "reward activity" or other related events when they felt so burdened with regular work loads. Most had expressed to the experimenter the belief that discussions were impossible in the classrooms and, even after the research staff conducted several for them, they did not hold them.

By the end of the first six weeks of the intervention, the teachers had communicated to the researcher that they supported any efforts on her part to carry out the program but they could not be actively involved. They felt such work with the students needed to be done (at recesses to not use class time), but the Advisor was the only one possessing "free time" to do it. As the year had progressed, the teachers had become increasingly focused upon instruction of subject matter and reluctant to devote any class time to such activities as

discussions of problems or planning class projects to improve the classroom.

Therefore, by the end of Phase Two, the intervention had been reduced from its original design including extensive teacher support to the more limited scope of the Leadership Program with minimal and inconsistent teacher cooperation. All teachers continued to meet with the Advisor weekly and to participate in evaluating the progress of the Program. They were more comfortable and pleased with the format which developed in Phase Three which did not request so much additional time and effort from them. They did continue to resist elements of the Program which removed Leaders from the classroom during work periods.

Phase Three: Re-Structuring into Smaller Task Forces to Serve the School:

In January the problems and limitations to be encountered in attempting to continue the Good Citizen Program without modifications were discussed by the Leadership and teachers' groups under the provocation of the Advisor. She recommended that the Leaders continue to monitor their individual behavior in order to earn privileges, serving as models until the other 250 students and teachers were more ready to undertake the task again. The two principal complaints by teachers and students were related to dishonest record-keeping and the lack of feasibility of the reward activities desired by the students. Because the Leaders felt unable to resolve either problem, they agreed to change plans and consider other methods of helping to improve the school.

In January the content of the Program became more focused upon Leaders serving as models. All Leaders maintained Good Citizen records of their behavior in class for a few weeks, and many elected to continue until the end of their Leadership term in mid-February. During this period the Advisor became concerned with the morale of some Leaders who were failing to perceive themselves as successful in the Leadership role because of a disturbing amount of teacher and/or peer resistance. After describing the diverse capabilities of individuals in the Leadership Program, she suggested the group compile a list of varied tasks or services that individuals or small groups could perform to help improve the school. In this way individual strengths could be used more effectively. Each Leader was allowed to choose a personal project to carry out individually or a small group project to be accomplished in a team effort.

Reorganization. As a result of exploring possibilities, including requests from teachers, three smaller "task groups" were formed: Monitors, Classroom Helpers, and a Videotaping Group. The Monitors were organized in response to teacher requests for the help of Leaders in improving the behavior of students lining up after recess. Applying the principles of behavior modification learned earlier, the group of eight Leaders gathered information about the problem and then defined the precise behavior wanted. They informed the students and then monitored classes lining up, using clear standards of evaluation. Those classes behaving perfectly received a Good Citizen token. A perfect record for the day earned a pennant to mount in the window.

(Details are found in Appendix II.) The methods the Leaders chose to reduce the problem were extremely effective, and all the professional staff expressed amazement at the results obtained. Each week the classes with the best records were honored by having their class pictures and names posted beneath a Good Citizen plaque near the administration offices. The Monitors remained effective until the end of their term in February.

The Classroom Helpers, a larger group of 12 to 20, assisted teachers in the lower grades by tutoring children or helping to prepare teaching materials. During their Leadership meetings they role-played situations which might occur in the classrooms and evaluated the type of responses expected of Leaders to best serve as models of appropriate behavior. Most of the meetings with these Leaders were simply evaluating their effectiveness as Helpers and doing some problem-solving related to individual needs. Some teachers granted Helpers much responsibility; others almost ignored them. Participation as a Helper was dependent upon completion of class work and model classroom behavior. Most Leaders in the group earned the privilege of helping every day for about thirty minutes. A few Leaders never satisfied the requirements of their teachers and were discouraged.

The Videotaping Group also was organized in response to teacher request for help in teaching children alternative ways of handling social situations frequently resulting in conflict. The Leaders took examples of situations they recognized as often causing fights and acted them out with varying endings. The first version of the story

resulted in unpleasant conflict. The second version showed an alternative way of handling the situation to produce happier outcomes. Teachers were supposed to use the dramatizations to stimulate class discussions. None of them did so immediately.

A few individuals chose to be office assistants, helping to distribute materials and equipment as well as helping administrators with supervision of the playground and cafeteria. About eight Leaders became relatively inactive except for the general meetings.

During Phase Three the entire group of 32 Leaders gathered at noon on Mondays to share progress reports and plans. To reduce friction with the teachers, the time of the general meeting was changed to not infringe upon teaching time. Leaders brought their lunches to a Resource Room where they sat at desks in a circle and informally shared experiences while eating. After lunch, a brief formal meeting was held during which representatives from classes were called on for reports, task groups reported, and individuals were encouraged to share ideas. As a result of these meetings, four of the classes decided to conduct such projects as litter campaigns to help improve the school. Also, a group was organized to carry out noontime dances proposed by two sixth grade Leaders. This group successfully conducted dances on two days a week for a month. They were very proud of their accomplishment. When teachers objected to the plan because supervision would be required and the cafeteria needed to be cleaned, the Leaders solicited the Advisor to supervise and suggested that dancing be done on the basketball courts outdoors. The administrators predicted behavior

problems, but there was not one occurring during the lunch recesses on days the dances were held.

During this phase, the Leaders experienced greatest pride in their ability to reduce behavior problems after recesses by monitoring students lining up and during lunch by providing constructive activity in the noontime dances. By the end of the intervention period, the Leaders had developed a positive self-image and many individuals were functioning effectively in small cohesive groups. Two all-day field trips were taken as rewards for their contribution to the school. On those trips the behavior of all, including the initially most negative Leaders, was exemplary and the attitudes predominating were those of pride and self-respect.

After the conclusion of the intervention, an awards assembly was held in which outstanding Leaders were recognized and all received certificates of award specifying their individual progress toward self-improvement and their contributions to the improvement of the school. Students not participating in the fall Leadership groups were extremely eager to hear the announcement of new Leaders for the Spring term. The program had gained respect, and the positions of social status were coveted by most students.

Table 1

Content of the Leadership Meetings

Week	Session #1 (usually Tuesday)	Session #2 (usually Thursday)
1	Getting acquainted; Clarifying purpose and nature of Leadership groups; Prepare to interview peers; Plan to "shadow"; Invite parents to a "tea."	Reports of Shadows and interviews; Select group name and badge; Prepare to lead class discussions based on responses to TAMS; Prepare to host parent "tea."
2	Explain role of Chairman; Establish standards of conduct; Report on class discussions; Select school colors; Plan to research causes of fights.	Discuss in small groups causes of fights, possible solutions; Synthesize findings of groups into one report
3	Combined groups: field trip to Municipal Council	Combined groups: Administrators invited to hear reports of Shadows and to discuss findings, role of Leaders.
4	Reports of class discussions adding to list of causes of fights compiled last week. Summarize information gathered about school; state specific goals for improving the school. Decide on project to accomplish the goals of less fighting, more kind words, and cooperation as Good Citizens.	School Holiday.
5	Restate the goals and review the plan; Determine rewards to offer; Plan presentation to teachers.	Combined meeting: Determine classes to participate in Good Citizenship project; Tally class votes on rewards; Prepare to implement the plan.

Table 1 (Continued)

Week	Session #1 (usually Tuesday)	Session #2 (usually Thursday)
6	Reports on effectiveness of the Good Citizen program begun the previous day; Preparations for reward activities, tallying points.	Combined meeting: Progress reports on Good Citizen program; Begin thinking about possible new group projects in January.
7	Brief meeting regarding change in plans for for reward activity.	No meetings due to special Christmas assemblies.
	(Christmas Vacation)	
8	Evaluation sessions; Consideration of alternative activities in January.	Review purpose of service activities; Clarify specific behaviors expected of Leaders helping in classrooms; Clarify self-monitoring procedures; List behaviors causing problems for Leaders in class or on grounds.
9	Check self-monitoring charts; Reports on classroom helping; Role-play Leadership situations.	Role-play problem situations; Discussion of frustrations in carrying out tasks.
10	Planning of field trips; Division into groups to monitor lining up and to produce videotapes (response to teacher requests for help).	Monitors: Organization and detailed plans. Helpers: no group meeting; met with individuals to evaluate. Plan to begin videotaping.
11	Monitors: Plan materials to be made; set procedures. Videotape Group: Divide into small working groups to develop a plot.	Monitors: Drilled on procedures; Announced the plan to classes, showing armbands, awards and explaining evaluations. Videotape Group: Steps in preparing dramatization explained; Small groups practiced.

Table 1 (Continued)

Week	Session #1 (usually Tuesday) Session #2 (usually Thursday)
12-13	Sessions involved evaluation and planning with each "task group" until goals were attained or projects completed. Monitors continued to carry out their program during the two-week interim between Leadership groups.

CHAPTER III

RESEARCH HYPOTHESES AND RESULTS

This chapter presents the results of statistical analyses performed to test the research hypotheses upon which this study was based. The findings have been organized into four major sections: Measures of Self-Concept, Measures of Locus-of-Control and Efficacy, Measures of Attitude Toward School, and Measures of Classroom Behavior. In each section, the reader will find the research hypotheses, analysis of results from measurement, and specific conclusions and discussion. On occasion, for simplicity, letter symbols will represent the independent variables, as follows:

G -- Ss grouped under experimental (E) or control (C) conditions;

P -- Ss classified by teachers as usually Positive (P) or Negative (N) in behavior and attitudes;

S -- male (M) or female (F)

T -- the teachers grouped as more supportive of the intervention (Teacher Group One) or less supportive (Teacher Group Two).

The letter M has been used to represent measurement over time. For each variable, analysis of variance was computed after the data were tested for meeting the necessary assumptions. Approximately ten percent of the F tests calculated were significant at the .05 or .01

levels of confidence. Fisher's method of determining the least significant difference (L.S.D.) between ANOVA means was used to make pairwise comparisons in significant interactions. Inter-"factor" correlations within measures and correlations between measures were obtained for all variables. Matrices are provided in Appendix III, in addition to those findings reported in the text. Means and standard deviations for all cells on major variables are listed in Appendix III also.

Measures of Self-Concept

Research Hypotheses

It was hypothesized that as a result of participation in the Leadership Program students would develop more positive attitudes toward themselves in relationship to school experiences. This effect was expected particularly for Negative Ss. Specifically, the following hypotheses were tested:

1. Ss in the experimental group will perceive themselves as having more friends and social influence than will Ss in the control group.

2. Ss in the experimental group will report greater sensitivity for others and ability to "get along" with peers than will Ss in the control group.

3. Ss in the experimental group will report themselves as feeling happier and more self-confident than will Ss in the control group.

4. Ss in the experimental group will report more positive feelings about themselves in relationship to others in school, including more self-control and desire to participate actively in school affairs.

Results

It is appropriate to begin by briefly reporting analyses for

the overall or "total" scores on the Sears and the Gordon self-concept measures, even though none of the hypotheses pertained directly to these more global self-reports. No significant changes in these scores occurred as the result of participation in the intervention, but significant differences between the global self-concepts of Positive and Negative Ss were noted. The Sears instrument also displayed significant differences between males and females, significant interaction between sex and grouping, and between sex and teacher group (see ANOVA Table 7). The absence of treatment effects on global self-report was expected for two reasons: 1) the self-report of attitudes toward self have been found relatively stable over time; 2) total scores are heavily weighted with items concerning physical and academic aspects of self-concept (50 percent of the items on the Gordon measure and about 67 percent of the Sears inventory), which the intervention was not intended to influence.

Following Mischel's (1968) emphasis on specificity of assessment, results from appropriate subareas of the self-concept measures alone were used to test the specific hypotheses.

Social Relations:

Hypothesis 1: Ss in the experimental group will perceive themselves as having more friends and social influence than will Ss in the control group.

It was expected that Leaders (experimental Ss), as a result of knowing they received many peer votes as "able to get others to do things" and of being in a coveted role of recognized social status, would perceive and report themselves as possessing more friends and

social influence on post-intervention measures. As measured by self-report on the Sears items grouped as Social Relations, the hypothesis was not confirmed by analysis of variance. There was no evidence that members of the Leadership group perceived improved social relations as the result of participation in the program. However, some significant interactions helped to elucidate social dynamics within this specific population sample.

Interactions of group with sex and attitude with time (pre-post) were significant at the .01 level for Social Relations. From these outcomes are seen two observable tendencies in this particular peer culture: 1) Males tend to perceive increased social rank or power while females tend to perceive less social influence over time (see Table 2); 2) individuals with positive attitudes tend to become more positive while negative individuals tend to become increasingly negative (see Table 3).

Table 2

Means of Pre and Post Measures of
Sears Social Relations for Males and Females

	Experimental		Control	
	Pre	Post	Pre	Post
Males	(3.40) 3.40	3.39	(3.60) 3.46	3.73
Females	(3.66) 3.70	3.61	(2.98) 3.16	2.80

GSM: $F = 1.48$, n.s.

L S.D. between means:
($p \leq .05$) = .47
($p \leq .01$) = .63

GS: $F = 7.97$, $p < .01$

L.S.D. between means:
($p \leq .05$) = .45
($p \leq .01$) = .60

Table 3

Means on Pre and Post
Measures of Sears Social Relations
for Positive and Negative Ss

	Pre	Post
Positives	3.15	3.55
Negatives	3.71	3.21

PM: $F = 15.92$, $p < .01$

L.S.D. between means: $(p \leq .05) = .32$
$(p \leq .01) = .43$

Means for females under the two conditions (E and C) were significantly different on pre ($p < .05$) and post ($p < .01$) assessments. Post means for experimental males and females were not significantly different from each other, but the post differences between control males and females was significant at the .01 level. Testing means in Table 3 showed that differences between Positives and Negatives were significant in October ($p < .01$) and February ($p < .05$). The pre to post change was significant at the .05 level for Positives and at the .01 level for Negatives.

Although the ANOVA results for group by sex interaction (ANOVA Table 7) and the means for control Ss reported in Table 2 suggest strong sex differences, the means for the GPSM interaction (Table 4) reveal the pervasive influence of initial subject attitude. The interaction of sex and attitude on reported self-concept for Social Relations indicates that Positive Ss, regardless of sex or condition, tended to report

Table 4

Means for the GPSM Interaction
on Sears: Social Relations

		Experimental		Control	
		Pre	Post	Pre	Post
Positive	Males	3.21	3.62	2.85	3.66
	Females	3.56	3.94	2.97	3.00
Negative	Males	3.59	3.16	4.06	3.81
	Females	3.84	3.28	3.34	2.59

GPSM: $F = .15$, n.s.

L.S.D. between means: $(p \leq .05) = .21$
$(p \leq .01) = .30$

Table 5

Number of Male and Female Ss Reporting Self
Higher or Lower on Post Measure of Sears: Social Relations

		Experimental		Control	
		Lower	Higher*	Lower	Higher
Positive	Males	1	7	1	7
	Females	2	6	5	3
Negative	Males	4	4	4	4
	Females	4	4	5	3

*Identical pre and post means for Ss were included in the Higher group.

higher post self-reports. The influence of the sex factor is seen clearly in that: 1) Positive females in the control condition did not rise in self-concept for Social Relations as did all other groups of Positives, and 2) the group mean for Negative control females dropped more than other Negative cells. This suggests the importance of the intervention for females. Table 5 further indicates that self-concept for Social Relations was enhanced most for females with more Positive attitudes participating in the Leadership Program.

It can be seen that Positive youngsters in this elementary school tend to become more socially confident and popular during the school year while Negative students generally become less positive about their social worth and effectiveness. This trend seems to obtain whether or not continuous opportunities for social leadership occur or teacher effort to increase the social skills of students exists. It should be mentioned that the initially higher self-report of Negatives on most pre-measures of self-concept (as seen in Tables 3, 4, 6) may be interpreted as defensively biased reports which are more prevalent on initial measures. However, the marked contrast between the pre and post self-report of Positives and Negatives substantiates the interpretation regarding social dynamics in this particular peer culture.

Summary and Discussion. The findings suggest that the Leadership experience was valuable in helping Positive female Ss develop even more positive concepts of themselves regarding social relations. Strong effects in the hypothesized direction were not found. Rather, the results suggest that the effectiveness of the intervention is modified by

Table 6

Means for the GPTM Interaction on
Sears: Social Relations

		Experimental		Control	
		Pre	Post	Pre	Post
Teacher Group One	Positives	3.44	3.66	3.79	3.38
	Negatives	3.88	3.31	3.47	2.84
Teacher Group Two	Positives	3.33	3.91	3.03	3.28
	Negatives	3.56	3.12	3.94	3.56

GPTM: $F = .80$, n.s.

L.S.D. between means: $(p \leq .05) = .21$
$(p \leq .01) = .30$

the strong effects of sex and attitude of Ss in this population. In some individual cases negativism was reduced by participation in the Leadership Program. For most Negative Ss it seems that detrimental social images were too rigidly established and constructive social skills were unsufficiently developed to allow the Ss to be successful.

The Advisor observed that most Negative Ss lacked skills for consistently effective peer leadership as they frequently persisted in the use of negative methods of influence, such as physical force. Equally important, probably, was the failure of most teachers to help Negative Ss discover more effective [illegible] of leadership, and to provide them with some genuine success experiences. According to reports from Leaders and teachers, classmates often expressed resentment toward

TABLE 7

SUMMARY OF ANOVA RESULTS: SELF-CONCEPT MEASURES

Source	df	Social Relations MS	Social Relations F	Social Virtues MS	Social Virtues F	Work Habits MS	Work Habits F	Happy Qualities MS	Happy Qualities F	SC Total MS	SC Total F	*Special Focus MS	*Special Focus F	Gordon Total MS	Gordon Total F
Mean	1	1484.77	—	1186.76	—	1371.57	—	1561.01	—	1460.12	—	462604.8	—	1513.49	—
Between Subjects:															
Grouping (G)	1	1.84	2.37	.31	.39	.24	.35	.20	.34	.26	.07	570.32	4.66**	1.09	3.59*
Attitude (P)	1	.39	.50	.59	.08	14.78	21.65***	1.42	2.44	3.16	9.00***	2923.32	23.94***	5.61	18.54***
Sex (S)	1	1.03	1.33	.18	.23	.58	.73	.20	.34	1.54	4.38**	64.74	.73	.66	.00
Teacher Group (T)	1	.48	.62	.83	.11	.31	.05	.71	1.21	.17	.48	9.57	.11	.22	.67
Measure (M)	1	.69	.17	.26	.86	.38	.79	.28	.61	.15	.98	775.20	10.69***	.30	1.77
G×P	1	1.61	2.07	3.20	4.11**	1.32	1.93	.16	.27	.69	1.97	86.13	.97	.37	1.23
G×S	1	6.19	7.97***	1.37	1.76	3.96	5.79**	1.13	1.93	1.81	5.15**	652.51	7.36***	1.14	3.78*
P×S	1	1.43	1.84	.53	.68	1.88	2.75	1.42	2.44	.10	.30	192.57	2.17	.79	2.60
G×T	1	1.43	1.84	.36	.46	.33	.48	.86	1.48	.52	1.59	262.51	2.28	.15	.48
P×T	1	.77	.10	1.94	2.48	.16	.23	2.00	3.43*	.44	1.25	3.45	.04	.21	.67
S×T	1	.46	.59	4.04	5.18**	.50	.73	3.96	6.79**	1.88	5.37**	41.63	.47	.38	1.25
G×M	1	.10	.00	.31	.94	.18	.04	.31	.07	.19	.12	76.57	1.04	.14	.01
P×M	1	6.58	15.92***	.26	.80	.16	.33	.33	.72	.87	.56	61.88	.85	.38	1.80
S×M	1	1.04	2.51	1.37	4.25***	.70	.15	1.32	2.87*	.20	1.29	43.95	.61	.14	.10
T×M	1	.77	.19	.47	1.45	.70	.15	.20	.00	.26	.02	258.95	3.53*	.53	3.17*
GPS	1	.61	.79	.44	.01	3.78	5.54**	.16	.27	.54	1.55	.78	.00	.23	.74
GPT	1	1.42	1.83	.36	.46	.95	1.38	.70	.12	.62	.18	126.81	1.42	.44	.61
GST	1	.50	.64	.22	.28	.96	.14	.56	.97	.21	.06	.26	.00	.24	.78
PST	1	.54	.67	.49	.00	.44	.64	.78	.01	.43	.01	92.82	1.05	.71	.23
GPM	1	.10	.00	.12	.04	.00	.00	.18	.04	.21	.61	1.76	.02	.15	.09
GSM	1	.61	1.48	.90	2.79	.16	.33	.78	1.70	.40	2.53	99.78	1.16	.95	.57
PSM	1	.18	.04	.41	1.27	1.03	2.14	.24	.51	.32	.02	76.57	1.06	.44	.83
GTM	1	.16	.39	.40	.12	.33	.68	.49	.11	.38	1.94	.78	.00	.77	.46
PTM	1	.64	.15	1.47	4.57**	.49	.10	.78	.02	.91	.06	138.28	1.91	.80	.48
STM	1	.54	.13	.31	.94	.31	.06	.24	.51	.29	.18	103.32	1.42	.19	.12
GPST	1	.64	.82	.59	.08	.38	.56	.78	.01	.32	.01	41.63	.47	.58	.66
GPSM	1	.64	.15	.14	.44	.28	.53	.20	.00	.18	1.18	99.78	1.16	.20	.12
GPTM	1	.33	.80	1.82	5.62**	.78	.02	.31	.07	.29	1.88	343.20	4.18**	.53	3.51*
GSTM	1	.81	.02	.11	.34	1.03	2.14	.18	.04	.29	1.88	5.78	.08	.23	.14
PSTM	1	.17	.41	.26		.20	.00	.78	.02	.22	1.40	7.51	.10	.11	.01
GPSTM	1	.71	.17	.12	.04	.00	.00	.78	.02	.66	.00	39.38	.54	.10	.06
Within Subjects:															
R (GPST)	48	.78		.78		.68		.58		.35		88.65		.30	
RM (GPST)	48	.41		.32		.48		.46		.16		72.51		.17	

Critical F Values: df 1,48

*** $p \leq .01$, 7.19
** $p \leq .05$, 4.04
* $p \leq .10$, 2.82

* Based on S total scores rather than S mean responses.

Negative Leaders for having been granted the privilege of being a Leader, especially if the Leader tended to be demanding.

It should be noted that although several Negative Leaders became recognized by the professional staff as "outstanding" Leaders, only one reported higher self-concept for Social Relations in February. Perhaps these Ss were most cautious in regarding positive changes as actual self-improvement and were more inclined to attribute favorable change to the temporary role of Leader. Regardless of the reasons, these outcomes suggest the pervasive impact of past attitude and behavior classified as "Negative" upon future performance in the school setting, even given new opportunities for positive change.

Social Virtues:

Hypothesis 2: Ss in the experimental group will report greater sensitivity for others and ability to "get along" with peers than will Ss in the control group.

This facet of self-concept was tested by the Sears Social Virtues items. This category of responses may reflect most directly the individual's concept of himself independent of response or feedback from others, as opposed to items like "Having plenty of friends" or "Getting my work done on time," which peer and teacher feedback would influence. The items to be evaluated on a scale of "1" ("not so good") to "5" ("excellent") read:

1. Being willing to let others have their way sometimes.
2. Making other people feel at ease.
3. Being sensitive to what others are feeling.
4. Being easy to get along with.

One would expect positive effects on self-concepts for Social

Virtues of experimental Ss if Leaders were adequately influenced by Leadership training to act as models of cooperative and sensitive social behavior. The ANOVA results for this measure did indicate more significant differences between groups than did any other category on the Sears inventory (see ANOVA, Table 7), but the meaning of the findings remains unclear and without definite relationship to the intervention experiences.

As with Social Relations, there was some evidence that under control conditions male social leaders become somewhat more positive in their self-perceptions while females become significantly less positive ($p < .01$) over the four-month period (see Table 8). But, reported self-concepts for Social Virtues remained amazingly similar pre to post for male and female Leaders, with differential results by sex occurring among control Ss. The pre-post correlation coefficient was .70 for experimental Ss and .07 for control Ss, a difference significant at more than the .01 level of confidence (see Appendix III-3c; discussion in Chapter IV).

Table 8

Means for Males and Females on Pre and Post Measures of Sears Social Virtues

	Experimental		Control	
	Pre	Post	Pre	Post
Males	2.91	2.95	3.14	3.32
Females	3.08	3.05	3.23	2.67

GSM: $F = 2.79$, n.s.
L.S.D. between means: $(p \leq .05) = .41$ $(p \leq .01) = .55$

Table 9

Means for the GPTM Analysis on Measures of Social Virtues

		Experimental		Control	
		Pre	Post	Pre	Post
Teacher Group One	Positives	3.00	2.97	2.66	2.88
	Negatives	3.13	3.00	3.72	2.81
Teacher Group Two	Positives	3.19	3.38	3.25	2.88
	Negatives	2.66	2.66	3.13	3.44

GPTM: $F = 5.62$, $p < .05$.

L.S.D. between means: $(p \leq .05) = .60$ $(p \leq .01) = .83$

Examination of the GPTM table of means for Social Virtues (Table 9) also indicates that experimental Ss, both Positive and Negative, essentially maintained similar attitudes toward self on this measure while control Ss showed more change, the direction of change possibly being affected by the teacher. It seems likely that the Leadership experience tended to be most helpful for Negatives in Teacher Group One and for Positives in Teacher Group Two. This outcome may be a reflection of a differential teacher treatment of Leaders--teachers in Group One appeared to nurture Negative Leaders more and tended to be more demanding of Positives, while teachers in Group Two were more inclined to support Positive Leaders. The evidence is not perfectly clear and the interpretation is somewhat speculative.

It is interesting that Positive control Ss with Teacher Group

Two became more negative with Negative control Ss became more positive, contrary to general trends on all other self-reports. One possible explanation might be the frustration of control Ss who did not have opportunities for leadership activities outside the classroom as did Leaders. Positives seem to respond to disturbing classroom circumstances with more self-criticism while Negatives manifest a tendency toward defensive reactions to perceived failure or inability. These differences between the responses of Positives and Negatives were hypothesized by the experimenter on the basis of informal observations and are suggestive of further research.

Summary and Discussion. The suggested interpretations of the findings reported for Social Virtues have been drawn from documented teacher evaluations of Leaders and both formal and informal student reports. However, the results cannot be regarded as definitive, especially in view of the inconsistencies on pre measures. For example, the significant S x T interaction ($p < .05$) may be largely the result of initial differences between class groups, although pre means were not significantly different, rather than the result of teacher effect (see Table 10). All pairwise comparisons of means for the ST interaction closely approached significance at the .05 level. However, of the STM means, pre difference between males and females in Teacher Group Two was significant ($p < .01$). The only significant post difference was between males and females in Teacher Group One ($p < .01$). Pre to post change for females in that group approached significance at the .01 level.

Table 10

Means Across Time on Social Virtues Category
For Males and Females in Teacher Groups One and Two

	Teacher Group One			Teacher Group Two		
	Pre	Post	Average	Pre	Post	Average
Males	3.18	3.28	3.23	2.86	3.00	2.93
Females	3.06	2.54	2.80	3.25	3.17	3.21

ST: $F = 5.18$, $p < .05$

L.S.D. between means:
$(p \leq .05) = .44$
$(p \leq .01) = .59$

STM: $F = .94$, n.s.

L.S.D. between means:
$(p \leq .05) = .41$
$(p \leq .01) = .55$

Accepted on face value, the results from this measure suggest that the Leadership experience was valuable in preventing the downward direction of self-concepts possessed by Negatives with teachers in Group One and for Positives with teachers in Group Two. To that extent, the hypothesis may be tentatively accepted. The results clearly suggest that teacher responses to Leadership roles are influential upon outcomes. If the teacher is supportive and helps the individual attain and perceive social success, attitudes toward self will remain more positive. Study of the self-reports of individual Ss reveals definite gains for students where teachers and peers allowed the individual to feel successful as a Leader and reinforced individuals demonstrating social sensitivity.

Happy Qualities:

Hypothesis 3: Ss in the experimental group will report themselves as feeling happier and more self-confident than will Ss in the control group.

The Sears Happy Qualities subarea was substantially correlated (.62 pre, .72 post) with the Sears Total self-concept score (see Appendix III-2a) but it failed to produce any significant differences even for attitude or sex as main effects. Thus, the hypothesis was not confirmed.

The only significant outcome was the interaction of sex and teacher (see Table 11), which suggested males might be generally happier with teachers in Group One while females seem happier with teachers in Group Two. Males were significantly happier than females in Teacher Group One over time ($p < .05$). Females were significantly happier over time with Teacher Group Two than with Teacher Group One ($p < .01$).

Table 11

Means on Happy Qualities for Males and Females in Both Teacher Groups

	Teacher Group One			Teacher Group Two		
	Pre	Post	Combined	Pre	Post	Combined
Males	3.62	3.64	3.63	3.33	3.53	3.43
Females	3.31	3.09	3.20	3.89	3.59	3.70

ST: $F = 6.79$, $p < .05$ STM: $F = .51$, n.s.

L.S.D. between means: $(p \leq .05) = .38$
$(p \leq .01) = .50$

However, examination of pre and post means reveals that females in both groups tended to become less happy while males remained as happy or became happier. Teacher effects seemingly were related to

initial and sustained group differences between qualities of males and females. All of the differences between pre means approach or exceed the .05 level of significance. But, one can state with considerable certainty that differences in self-report as to happiness at school were inconsequential.

If Ss did gain confidence and/or enjoyment of school during participation in the Leadership experience, it would not be expected that individuals would rapidly generalize those "good" feelings to the more general and sustained experiences of the school and community. Furthermore, if experiences in the broader school setting did not change favorably, it would not be expected that generalization of feelings would occur. The latter explanation seemed to be the case. As was described in Chapter II, as the Leadership Program was developed the tensions increased between many Leaders and teachers. Teachers failed to adjust their methods and programs of instruction to adequately support Leaders and to allow Leadership activities to be carried out. Many Leaders were unhappy with those circumstances and resented the lack of cooperation from their teachers. Such behavior as not wanting to return to class after Leadership sessions indicated that the students enjoyed participation in the Program. Leaders generally were enthused about the meetings but lacked confidence in accomplishing tasks within the classrooms. The items in this category are:

1. Being confident, not shy or timid.
2. Getting a lot of fun out of life.
3. Being able to change things that don't suit me.
4. Enjoying myself at school.

Considering the fact that the items did not refer to the

Leadership experience specifically but rather to generalizations about the broad spectrum of daily experiences, the results affirm the report of the experimenter that teachers did not fulfill their aspect of the intervention as designed (see Chapter II). Certainly the many obstacles encountered by Leaders attempting to effect change in the school and the oppressive nature of some home and classroom situations would reduce chances for substantial changes in happy qualities resulting from any similar treatment sustained for only a four-month period.

Special Focus:

Hypothesis 4: Ss in the experimental group will report more positive feelings about themselves in relationship to others in school, including more self-control and desire to participate actively in school affairs.

The "Special Focus" items from the Gordon Self-Concept Inventory, which were used to test this hypothesis, include all items in Gordon's factor of Teacher-School, the factor labelled Interpersonal Adequacy with items pertaining to achievement skills and popularity excluded, and two "Autonomy" items (see Chapter II and Appendix I-2). Essentially, the academic and physical self-concept items were not included in the "Special Focus" scores. It is important to remember that whereas Sears asks the subject to compare himself with peers, Gordon elicits direct feelings about personal behavior and relationships with others. Since Gordon designed his instrument for use in schools, the content has a practical emphasis more specifically related to teachers and school experiences than exists in some categories of the Sears inventory. Thus, this portion of Gordon's measure appears independent of the other

self-concept measures obtained, except for some overlap with the overall Gordon score (see Appendix III-2a for correlations).

The Special Focus measure includes seventeen items similar to the samples listed below:

1. I don't stay with things and finish them.
2. I get along very well with teachers.
3. I don't feel at ease, comfortable inside.
4. I have trouble controlling my feelings.
5. School isn't interesting to me.
6. I get mad easily and explode.

Perhaps the specificity of these items in relation to the nature of the intervention explains the fact that it was this measure of self-concept which produced the most significant differences in this study. There were significant main effects for group, attitude, and measure over time, as well as interaction between sex and group (see ANOVA Table 7).

The significant four-way interaction as seen in the GPTM table (Table 12) indicates the hypothesis can be accepted with limitations. Rather than creating significantly more positive feelings, however, the intervention again seemingly reduced for some Ss the effects of negative influences in the social environment which tend to lower self-esteem over time. Examination of the ANOVA results and means tables for GPTM and GSM (Tables 12 and 13) suggests that:

1. Positive and Negative experimental Ss, especially with Teacher Group One, maintained more similar pre-post mean responses than did control Ss, whose means were generally lower on post measures.

2. The Leadership experience possibly was most helpful in maintaining self-esteem of Negatives in classes with teachers in Group Two and of Positives with teachers in Group One.

Table 12

Mean Total Scores for GPTM Interaction on Special Focus Measure

		Experimental		Control	
		Pre	Post	Pre	Post
Teacher Group One	Positives	64.75	63.63	70.63	60.63
	Negatives	54.75	54.88	55.63	58.25
Teacher Group Two	Positives	63.25	54.38	71.88	66.63
	Negatives	55.87	52.25	63.88	50.63

GPTM: $F = 4.18$, $p < .05$

L.S.D. between means: $(p \leq .05) = 9.10$
$(p \leq .01) = 12.66$

Table 13

Mean Total Scores for Males and Females in Both Groups, Pre and Post, on the Special Focus Measure

	Experimental		Control	
	Pre	Post	Pre	Post
Males	(55.00)		(63.81)	
	55.31	54.69	67.25	60.38
Females	(60.94)		(60.72)	
	64.00	57.88	63.75	57.89

GSM: $F = 1.10$, n.s.

L.S.D. between means:
$(p \leq .05) = 6.00$
$(p \leq .01) = 8.23$

GS: $F = 7.36$, $p < .01$

L.S.D. between means:
$(p \leq .05) = 4.70$
$(p \leq .01) = 6.25$

Table 14

Mean Total Scores for Significant Main Effects from ANOVA on Special Focus

October	February	Positives	Negatives	Experimental	Control
62.58	57.66	64.47	55.77	57.97	62.27

M: $F = 10.69$, $p < .01$ P: $F = 27.34$, $p < .01$ G: $F = 6.66$, $p < .05$

However, as was true with some other measures of attitude reported, accurate interpretation of outcomes was made difficult by differences between groups on pre means. Males in the two conditions were significantly different in October ($p < .01$) as were fall means for experimental males and females ($p < .01$). Pre to post differences were significant ($p < .05$) for all GSM groups except experimental males, who were similar on both measures. These initial differences cannot be explained with confidence.

The GPTM table shows that experimental Ss remained more similar pre to post in self-report on Special Focus items, especially with Teacher Group One, while control Ss frequently reported lower self-concepts. Control Ss declined more in Teacher Group Two than in Group One. Differences pre to post were significant for control Positives with Teacher Group One ($p < .05$) and for control Negatives with Teacher Group Two ($p < .01$). No pre to post differences were significant for experimental Ss, though Positives with Teacher Group Two approached the .05 significance level.

Positives showed more declines in positive attitude than did Negatives, seemingly the function of much higher pre-scores. The high October reports may reflect fall optimism or defense against negative self-perceptions. However, Positive Ss would have less need for defensive self-report in the fall. The marked drops in positive response by many groups of Ss may be the result of experiences and feedback over time or simply a loss of defensive responses. The negative declines in post reports of Positive Leaders in Teacher Group Two may have been caused by the frustrations met by more capable leaders and the tendency of teachers to hold higher expectations for them. The Positive Leaders were the most able and usually the most conscientious, and possibly more prone to frustration in interaction with peers and teachers. Where teachers were more cooperative (Teacher Group One), the decline did not occur.

Further Analysis on Self-Concept Measures

Due to the extensive variability between and within groups resulting from the interaction of many influential variables, interpretation and understanding of the results in self-concept is a difficult task. Careful analyses of outcomes for just experimental Ss can contribute to more accurate understanding of the effect of participation in the Leadership Program.

It is logical to expect the individual's perception of relative success or failure in the Leadership experience to be a predominant influence governing effects upon his attitudes and self-report. To test this assumption, all Leaders were ranked and divided into

quartiles according to demonstrated interest, effort, responsibility and observable confidence and good feelings about himself in the Leader role (see Chapter II). This performance ranking of Leaders was accomplished by the experimenter through the combined use of pupil self-evaluations, advisor observations and records of participation, and teacher reports.

Analysis of variance on all pre and post attitude measures was obtained with Group Rank as the independent variable. Although the only post measure for which there were significant differences between quartile groups was the Gordon: Total score, the table of means (Table 15) shows a surprisingly consistent relationship between performance as a Leader and self-report in areas of self-concept. Essentially the group means on post measures paralleled performance ranking but on pre measures other groups were often equal or superior to self-report by members of Group One (highest performers). Perhaps it is helpful to the interpretation to note that Group One Ss were markedly highest on pre measures of overall self-concept on the Gordon measure and highest, though equalled by Group Three, on Sears: Total. This suggests that the more confident or self-assured an individual may be, the more effectively he can respond to Leadership opportunities.

Group Two, the second highest quartile in quality of performance as a Leader, was similar to Group Four in post reports for Social Virtues, Work Habits, Happy Qualities and Special Focus. Group Two was the lowest group on both Gordon and Sears total scores in February. The reports of this group likely reflect a strong desire by Group Two

Table 15

Means and F Values for ANOVA Based on Performance Rank

	Group One (n = 8)	Group Two (n = 8)	Group Three (n = 8)	Group Four (n = 8)	F Value
Social Relations	1) 3.47 2) 3.91	3.69 3.53	3.67 3.46	3.42 3.14	1) .24 2) 1.84
Social Virtues	1) 3.16 2) 3.50	3.00 2.81	3.21 3.00	2.67 2.72	1) .79 2) 2.24
Work Habits	1) 3.53 2) 3.66	3.19 3.00	2.93 3.11	3.39 3.00	1) .74 2) 1.37
Happy Qualities	1) 3.63 2) 3.84	3.19 3.38	3.79 3.43	3.67 3.36	1) 1.03 2) 1.01
Sears Total	1) 3.61 2) 3.76	3.21 3.09	3.60 3.38	3.18 3.15	1) 1.76 2) 2.61
Gordon Special Focus	1)67.00 2)61.50	53.75 55.00	58.71 57.00	59.11 52.22	1) 2.51 2) 1.58
Gordon Total	1) 3.92 2) 3.43	3.02 3.19	3.34 3.31	3.29 3.28	1) .42 2) *4.50

1) = pre; 2) = post

* $p < .05$

Note: Special Focus scores are reported as average sums.

Ss to achieve social success comparable to that achieved by Ss in Group One. This desire perhaps was coupled with less ability to carry out tasks confidently and successfully, in comparison with Group One. The latter Ss were consistently highest on post measures.

Means on some pre measures for Groups Three and Four may reflect biased self-report due to defensiveness and social desirability

(e.g., Happy Qualities) since these groups contained proportionately more Negative Ss and Ss with weaker skills. But, post measures of self-report, especially for Social Relations, seem to reflect rather accurately the actual amount of Leadership success--i.e., Groups Three and Four being consistently lower in self-evaluation and evaluation by others than were Leaders in Groups One and Two. This finding suggests a direct effect of the intervention experience on self-concepts since pre measures did not reveal the same relationship between groups. This type of analysis with Performance Rank as an independent variable will be extended to other dependent variables in Chapter IV.

General Conclusions About Self-Concept Measures

If one asks specific questions directly related to the areas of self-concept the intervention is designed to influence, more definitive results on self-reports will be obtained than on global measures. On Total self-concept scores or on those subareas least related to the specific treatment of the intervention, a lack of significant results was not surprising. The analysis of overall self-concept scores was informative, however, in its indication that where differences occurred on specific categories of response, pre to post, there was more than a natural, general direction of predictable change in global self-attitude or self-report over time. It was clear that there is a measurable relationship between specific areas of self-concept and specific experiences.

Essentially, where measures were less dependent in their responses upon feedback from others (as in Social Virtues) and where the

items specifically addressed the experiences of the intervention (as in Special Focus), then more significant differences were found. These outcomes indicate that without Leadership experiences similar to those provided in this study, Positives become more positive in their social attitudes over time while Negatives become more negative; Leaders reported more similar self-concepts pre to post with less tendency to become lower, especially when success as a Leader was perceived. Also, females seem to become over time less socially confident in this sub-culture while males increase in social power and status; as Leaders this male-female effect was reduced.

One can conclude that opportunities for structured, constructive Leadership experiences may be most beneficial for socially powerful individuals with negative attitudes toward self and school and for females with leadership potential. A Leadership Program can offset the normal environmental influences in this particular sub-culture that tend to limit the development of effective social skills in many youngsters. Such a program can help maintain more positive self-attitudes in the individual. It is reasonable to hypothesize that if teachers had provided consistent help so that Leaders perceived greater peer support and personal success with tasks, more significant changes in self-concept would have occurred.

Measures of Locus of Control and Efficacy

Research Hypotheses

It was predicted that if students were granted opportunities

to provide constructive leadership, effecting actual change in the school environment, they would consequently perceive themselves as more efficacious and more responsible for the outcomes of their behavior. Sense of efficacy can be equated partially with the variable "locus-of-control," as measured by Hess (1969), Battle and Rotter (1963), Crandall (1965) and others; but, as a variable in this study it has broader meaning. As was stated in Chapter II, locus-of-control measures require the subject to attribute responsibility for success or failure events to self or to external persons or circumstances. On the Hess measure, 12 of the 16 items pertain directly to academic success or failure so other measures were needed to determine effects more directly related to social efficacy. Because of the ambiguity associated with measurement of social power, items were constructed in terms of the specific behaviors pertinent to this intervention (see TAP and TAMS, Appendices I-3, 4). Items on the TAP Questionnaire request self-report as to the response of others to the individual's efforts to be influential or to interact constructively with the social environment. The eight items on the TAMS inventory which pertain to "power," freedom to influence and ability to gain response from peers and adults, were used also to provide measurement in this area.

Specifically, the following hypotheses were tested:

1. Ss in the experimental group will report themselves as having more responsibility for personal failure in the classroom, having greater internal control over reinforcements, as compared to control Ss.

2. Ss in the experimental group will report themselves as generally being more socially powerful in the school environment.

3. Ss in the experimental group will report that peers listen to them more often.

4. Ss in the experimental group will report that teachers and the principal will let them test ideas and carry out plans more often.

Results

The results of ANOVA will be reported for the Hess Locus-of-Control measure, three items from the TAP questionnaire, and the "Power" factor on TAMS. Because measurement of this variable appears ambiguous, interpretations must be regarded as very tentative and speculative.

Correlations. Although the efficacy items of the different instruments were expected to measure specific aspects of the same generalized self-perception, correlations between instruments consistently were low or negative (see Appendix III-2b). Reliability as measured by pre-post correlation coefficients for control Ss often was not high (see Appendix I-7). Correlations were low also between most measures of self-concept and the Hess and TAP inventories (see matrices, Appendix III-2f). This last finding has been reported by other researchers (e.g., Sears, 1972).

It appears that the significant correlations between the three TAP questions and the February TAMS: Power items allow some prediction of mid-year perceptions of power by Fall perceptions of the willingness of peers, teachers and the principal to allow the individual to express himself and to be influential. It is interesting that perceptions of the principal in the Fall tend to predict negatively subject response on the Hess measure, pre and post. Students perceiving the principal as

willing to let them test ideas and carry out plans often report themselves as lower in internal control of reinforcements. This relationship could reflect the importance to the child of perceived external controls in the school which may or may not allow individual freedoms. Thus, higher scores for teacher and principal responding to the individual may correspond with lower scores for internal control due to attribution of power to external persons or positions. If this is true, it might contribute to the numerous near-zero and negative correlations between Hess' more academically-centered measure and other social efficacy items. Positive correlations might be offset by strong negative correlations in some cases.

A possible reason for the low efficacy pre-post correlations (Teacher, .12; Principal, .24) is that items reporting sense of efficacy or power may elicit responses specific to the Ss' feelings at that particular point in time. Observation of student behavior and discussion with students indicated to the experimenter that there had been little pupil experience in long-range planning or evaluation. Most Ss were not highly skilled in generalizing. Many seemed quite variable in attitude toward possible success in carrying out tasks involving interaction with others. Perhaps in this student population the external power residing in adult authorities tends to be perceived by many as unpredictable and therefore to be dealt with existentially--at the moment, then forgotten. Therefore, subject response on a questionnaire like TAP may report more transitory feelings.

Informal observations also suggested that many students in this

school attend to adults only when it is unavoidable, and are more concerned emotionally with peer responses and opportunities for social interaction. If this is true, it is reasonable that Ss would be more consistent and accurate in reporting perceptions of social relationships with peers (pre-post coefficient = .65). It also may be true that for many Ss peer social relations comprise much more consistent patterns of frequent interaction than do interactions with adults. A student may feel there is a greater chance of successful interaction with peers and may have little desire or opportunity for interaction with adults which tests "power" as the items request.

These interpretations are supported for the TAP items regarding teachers and kids by the comparison of correlations obtained for the control and experimental groups (see Appendix III-3c). Leaders were more consistent pre to post regarding Kids Listen (.70) than were Controls (.59). More significant was the difference between the correlations for Teacher Helps: -.25 for Experimentals and .51 for Controls ($p < .001$). The inconsistency of the responses of Leaders pre to post undoubtedly reflects the effects of interaction with teachers upon the perceptions of Leaders. Controls were more consistent in response because there were no particular changes in their interactions with teachers. The opposite outcomes occurred with Principal Helps for Positive Ss: the coefficient for Controls was -.03 and .53 for Experimentals ($p = .11$). This result may reflect rewarding experiences of many Positive males who assisted the principal while serving as Leaders.

Internal Control Over Reinforcements:

Hypothesis 1: Ss in the experimental group will report themselves as having more responsibility for personal failure in the classroom, having greater internal control over reinforcements, as compared to control Ss.

Although Hess' measure revealed no significant ANOVA results confirming the hypothesis (see ANOVA Table 19), some trends were suggested. The means for group by time interaction (Table 16) show that experimental Ss gained in reported internal control while control Ss decreased.

Table 16

Means for Group by Time Interaction on Hess' Locus-of-Control Measure

	Internal Failure		Total Internal Control	
	Experimental	Control	Experimental	Control
October	5.19	5.69	11.03	11.56
February	5.94	5.38	11.38	10.91

GM: F = 2.80, n.s. GM: F = 1.30, n.s.

The GPTM Table of Means for Internal: Failure (Table 17) further reveals that Negative experimental Ss increased in internal acceptance of responsibility for failure while Negative control Ss decreased comparably for both teacher groups. For Positive Ss, however, there was some teacher effect suggested. Positive experimental

Table 17

Mean Total Responses for GPTM Interaction on Internal Responsibility for Failure

		Experimental		Control	
		October	February	October	February
Teacher Group One	Positives	5.13	6.25	6.13	4.50
	Negatives	5.00	5.63	5.88	5.50
Teacher Group Two	Positives	5.38	6.25	3.88	5.25
	Negatives	5.25	5.63	6.88	6.25

GPTM: $F = 1.64$, n.s.

Ss gained in both conditions but control Ss with teachers in Group One tended to report a large loss of felt internal control while those with teachers in Group Two showed a gain almost equally substantial. This finding may be indicative of the suggested tendency of Teacher Group One to be more demanding of "able students" and to set higher expectations for them while the second group of teachers tended to give "good students" more freedom and focused on disciplining "poor students." The Negative experimental students with Teacher Group Two reported less total internal control on the post-test while all other groups of experimental Ss showed overall gains (see Table 18). Comparison of the two tables indicates that Negative Leaders in Teacher Group Two tended to report themselves less responsible for success than for failure experiences on post assessment. That finding is possibly an indicator

Table 18

Mean Total Responses for GPTM Interaction on
Total Internal Control
(Success and Failure)

		Experimental		Control	
		October	February	October	February
Teacher Group One	Positives	11.00	12.00	12.00	9.75
	Negatives	10.38	11.13	11.88	11.25
Teacher Group Two	Positives	11.25	12.00	9.50	11.25
	Negatives	11.50	10.38	12.88	11.38

GPTM: $F = .86$ GTM: $F = 2.25$ PTM: $F = 3.44$, $p < .10$

of unhealthy self-perceptions which grant the self little credit for success but assume blame for more failures.

In summary, although the hypothesis was not confirmed by the analysis of variance, there was evidence that change occurred in the predicted direction for experimental Ss. Leaders tended to report in February more responsibility for failure and having greater internal control over reinforcements. Most control Ss did not show similar gains.

Social Power:

Hypothesis 2: Ss in the experimental group will report themselves as generally being more socially powerful in the school environment.

This hypothesis was not confirmed as measured by the "Power"

TABLE 19

SUMMARY OF ANOVA RESULTS FOR MEASURES OF POWER AND EFFICACY

		HESS' LOCUS-OF-CONTROL				TAP QUESTIONNAIRE						TAMS	
		Internal-Fail		Internal-Total		Kids Listen		Teacher Helps		Principal Helps		TAMS: Power	
Source	df	MS	F	MS	F	MS	F	MS	F	MS	F	MS	F
Mean	1	3731.23	—	1610.13	—	764.50	—	1092.78	—	316.03	—	51332.26	—
Between Subjects:													
Grouping (G)	1	.31	.00	.31	.00	.28	.24	.13	.11	.31	.62	19.24	1.67
Attitude (P)	1	5.23	.72	2.00	.19	.23	.24	4.50	4.11	3.13	2.44	70.51	6.30
Sex (S)	1	.78	.11	.31	.00	1.13	.95	.00	.00	2.53	1.98	20.32	1.96
Teacher Group (T)	1	.28	.04	.28	.03	.50	.42	1.13	1.03	.78	.61	48.76	4.71
Measure (M)	1	1.53	.97	.78	.13	.78	3.66	2.53	2.70	.00	.00	.20	.02
G×P	1	19.53	2.66	36.03	2.87	.00	.00	1.53	1.40	2.00	1.56	1.32	.13
G×S	1	.78	.11	6.13	.59	3.78	3.20	1.53	1.40	.31	.02	13.13	1.27
P×S	1	2.53	.34	2.53	.24	.78	.66	1.53	1.40	.13	.11	21.95	2.12
G×T	1	.31	.00	.13	.01	.23	.24	1.53	1.40	.28	.22	.78	.00
P×T	1	5.28	.72	2.53	.24	2.53	3.14	.31	.08	.50	.39	7.51	.72
S×T	1	2.53	.34	6.13	.59	.50	.42	1.53	1.40	9.03	7.25	1.76	.17
G×M	1	9.03	2.80	3.80	1.30	.13	.59	1.13	1.20	.13	.17	7.51	.61
P×M	1	1.53	.47	7.03	1.15	.08	.08	.50	.53	.78	1.09	.95	.83
S×M	1	.28	.09	.50	.08	.31	.15	.50	.53	1.13	1.57	4.13	.33
T×M	1	2.53	.78	.50	.08	.81	.15	.50	.53	6.13	8.52	1.76	.14
GPS	1	5.28	.72	6.13	.59	.08	.11	.50	.46	1.13	.88	21.94	2.12
GPT	1	5.28	.72	2.00	.19	.31	.08	2.00	1.83	.08	.06	.76	.01
GST	1	.78	.11	.31	.00	2.53	.83	1.13	1.03	.28	.22	27.20	2.62
PST	1	.28	.04	6.13	.59	.31	2.14	.13	.11	.50	.39	.32	.04
GPM	1	.31	.01	.13	.02	1.13	.15	.31	.08	.28	.39	.20	.02
GSM	1	1.53	.47	3.78	.62	.08	5.27	.28	.36	3.13	4.35	.63	.05
PSM	1	.78	.24	2.00	.33	.50	.10	.28	.36	.31	.04	7.51	.61
GTM	1	5.23	1.64	13.78	2.25	.13	2.34	.78	.28	1.13	1.57	2.12	.23
PTM	1	5.23	1.64	21.13	3.44	.78	.57	.31	.03	.31	.04	.72	.00
STM	1	1.53	.47	5.23	.86	2.00	3.66	2.53	2.70	.00	.00	7.51	.61
GPST	1	.31	.00	.78	.07	.78	1.69	1.53	1.40	1.13	.89	1.76	.17
GPSM	1	3.78	1.17	1.53	.25	.78	3.66	2.00	2.13	.78	1.09	1.32	.11
GPTM	1	5.23	1.64	5.23	.86	.13	3.66	.13	.13	2.53	3.52	17.26	1.39
GSTM	1	.78	.24	.00	.00	.50	.59	.50	.53	.13	.17	25.38	2.05
PSTM	1	1.53	.47	.78	.13	.31	2.34	.53	.53	.31	.04	23.63	1.91
GPSTM	1	.28	.09	2.00	.33	.31	.15	.78	.83	.28	.39	46.32	3.74
Within Subjects:													
R (GPST)	48	7.35		10.46		1.18		1.09		1.23		10.36	
RM (GPST)	48	3.23		6.14		.21		.94		.72		12.38	

Critical F Values: dF 1, 48

*** $p \leq .01$, 7.19
** $p \leq .05$, 4.04
* $p \leq .10$, 2.82

items on TAMS. There were significant main effects for attitude and teacher group but no significant interactions occurred (see ANOVA Table 19). As shown in Tables 20 and 21, the Positives felt more powerful than did the Negatives and students with Teacher Group One felt more powerful than those with teachers in Group Two. No significant effect from time was shown (see Table 22). The five-way interaction did approach significance but interpretation of it is very speculative and considered not helpful.

Table 20

Differences Between Positive and Negative Ss on TAMS: Power

Positives	Negatives
20.88	19.39

$F = 6.80$, $p < .05$

Table 21

Mean Total Scores for Ss by Teacher Group on TAMS: Power

Group One	Group Two
20.75	19.52

$F = 4.71$, $p < .05$

Table 22

Mean Total Scores for TM Interaction on TAMS: Power

	Group One	Group Two
October	20.59	19.59
February	20.91	19.44

$F = .14$, n.s.

Another source of information about social power is Peer Nominations. The nominations should be considered a direct measure of social efficacy, not testing the hypothesis regarding self-report. Results of the nominations can indicate whether changes in power might have occurred which were not reported by the individual Ss.

In October and in February, students were asked to name the four classmates who "can get you to do the most." A complete list of names was provided, and each pupil nominated confidentially four peers without any further restraints, such as sex, placed upon the nominations. Ss were classified on the basis of number of nominations received and some analysis was performed.

Essentially, the Peer Nominations in fall and winter were compatible with the findings based upon self-reports. There was little change in the social power structure of classrooms during the four months, regardless of assignment of social leaders to control or experimental conditions. The reliability coefficients for Peer Nominations were .71 for experimental Ss and .52 for control Ss, indicating less change in rank for Leaders. The two groups were similar pre and post in composition of high and low-ranking students (see Table 23).

It should be noted that rank on Peer Nominations did bear some influence upon the effectiveness of Leaders, an indirect measure of social power. Peer Nominations in October correlated .36 ($p < .02$) with Performance Rank as a Leader; nominations in February correlated with Performance Rank .47 ($p < .004$). It seems that those Leaders who were recognized by peers as influential more often were able to perform Leadership tasks effectively.

Table 23

Frequency Distribution of Ss
Ranking High or Low on Number of Peer Nominations

	October			February		
	Low (0-5)	High (6-10+)	0 Votes	Low (0-5)	High (6-10+)	0 Votes
Experimental	12	20	2	17	15	2
Control	15	17	1	18	14	1

Reported Peer Response:

Hypothesis 3: Ss in the experimental group will report that peers listen to them more often.

This hypothesis was not confirmed by the TAP item, "Kids listen to me." Mean responses to the question were significantly stable over time with one significant interaction (GSM) and several interactions approaching significance (see ANOVA Table 19). Differences between experimental and control group means on the pre measure again make interpretation questionable (see Table 24). Initial differences between males and between females in the two conditions were significant at the .01 level. Pre to post change was significant only for experimental males ($p < .01$). Tests of GPSM means showed that the Negative male Leaders contributed most to that result, the pre-post difference being significant at the .01 level while the difference for Positives was not significant.

Means for GSM and GPSM do suggest that the Leadership experience

Table 24

Means for GSM and GPSM Interactions on
TAP: Kids Listen

		Experimental		Control	
		October	February	October	February
	Males	2.19	2.63	2.69	2.63
	Females	2.56	2.56	2.00	2.25
Positives	Male	2.38	2.63	2.75	2.88
	Female	2.50	2.63	2.00	2.13
Negatives	Male	2.00	2.63	2.63	2.38
	Female	2.63	2.50	2.00	2.38

GSM: $F = 5.27$, $p < .05$

L.S.D. between means:
$(p \leq .05) = .33$
$(p \leq .01) = .44$

GPSM: $F = 3.66$, $p < .10$

L.S.D. between means:
$(p \leq .05) = .47$
$(p \leq .01) = .63$

was most helpful to males, especially Negatives. Perhaps the lack of significant results here is due simply to the fact that the peer social structure is quite stable, as suggested by Peer Nominations. It is interesting to note, however, that the mean responses to the item were consistently between "once in a while" and "often" rather than tending toward "always." The fact that one item comprises this measure severely limits the value of any findings based on it.

Reported Adult Responses:

Hypothesis 4: Ss in the experimental group will report that teachers and the principal will let them test ideas and carry out plans more often than control Ss.

The hypothesis was not confirmed by the TAP item, "Teacher helps." The only significant effect (see ANOVA Table 19) was for attitude, Positives perceiving teachers as more responsive to their requests than was perceived by Negatives (Table 25). Although not significant, it is interesting to note that males with Teacher Group Two lowered markedly their evaluation of teacher support while other groups maintained more similar means pre to post (see Table 26).

Table 25

Differences between Positives and Negatives on TAP: Teacher Helps

Positives	Negatives
3.11	2.73

$F = 4.11$, $p < .05$

Table 26

Means for the Interaction Between Sex and Teacher Over Time on TAP: Teacher Helps

	Teacher Group One		Teacher Group Two	
	October	February	October	February
Males	3.13	3.13	3.13	2.31
Females	3.06	2.75	2.94	2.94

$F = 2.70$, n.s.

As the intervention developed and a lack of teacher support became increasingly evident to Leaders, confirmation of the hypothesis could not be expected. It is not surprising that, as a group, experimental Ss did not report that teachers were more helpful to them in February than in October. In fact, a significant difference between the pre-post coefficients for Ss in the experimental and control conditions suggests some negative effects resulting from the attempted interactions of many experimental Ss with teachers (see Appendix III-3). The coefficient for the control group was .52, indicating reasonable consistency. There was a coefficient of -.25 for the experimental group, indicating some marked changes in perception. The difference between the two coefficients is significant at more than the .001 level of confidence. Means and standard deviations were not significantly different, pre to post. Plotted scores suggest that some very positive Leaders became frustrated with teachers while some initially negative Leaders gained more help and less resistance from some teachers.

In response to the question of the principal permitting student expression and implementation of ideas, there were three significant interactions. The ST means (Table 27) show that boys and girls with Teacher Group Two differed significantly in their perceptions of the principal ($p < .01$). Table 28 reveals that students with teachers in Group Two became more optimistic regarding support from the principal during the four months (pre to post, $p < .05$), while those with Group One teachers lowered their expectations ($p < .05$). The difference between post means for the two teacher groups was significant at the .01 level.

Table 27

Means for Sex by Teacher Interaction
on TAP: Principal Helps

	Males	Females
Teacher Group One	2.56	2.31
Teacher Group Two	2.19	3.00

ST: $F = 7.05$, $p < .05$

L.S.D. between means: $(p \leq .05) = .56$
$(p \leq .01) = .74$

Table 28

Means for Interaction between
Teacher Group and Time
on TAP: Principal Helps

	October	February
Teacher Group One	2.66	2.22
Teacher Group Two	2.38	2.81

TM: $F = 8.52$, $p < .01$

L.S.D. between means: $(p \leq .05) = .42$
$(p \leq .01) = .56$

The GSM means (Table 29) suggest that males benefitted most from the Leadership Program in relation to perceptions of the principal. This might have been due in part to the fact that many male Leaders chose to work with the principal during the term. Examination

Table 29

Means for GSM Interaction on TAP: Principal Helps

	Experimental		Control	
	October	February	October	February
Males	2.25	2.44	2.69	2.13
Females	2.69	2.63	2.44	2.88

GSM: $F = 4.35$, $p < .05$

L.S.D. between means: $(p \leq .05) = .61$

of individual data sheets does not support this interpretation, however. It is possible that there is some effect due to office referrals for disciplinary action during which time the principal often interacted supportively with individuals to develop constructive leadership potential. Males and students with Teacher Group Two were most apt to be referred. Such personal interaction or familiarity with the principal may be the significant factor.

It would be hazardous to attribute even slightly changed perceptions of the principal to treatment effect. The most that can be said is that some positive effect may have occurred for some male experimental Ss. The best conclusion which can be offered is that there was insufficient evidence that the hypothesis should be accepted.

Summary

Measurement of the variable efficacy revealed no significant results clearly attributable to treatment effect. Trends in the

predicted direction were evidenced, especially for males. The experimental Ss generally gained on measured locus-of-control, but not at the level of statistical significance. Means on the Hess measure indicated that the experience of Leader was most valuable for Negative males. Results on TAP and TAMS:Power showed no self-reported gain in social efficacy with peers, teachers, or the principal related to participation in the intervention. The significant difference between the reliability coefficients for the experimental and control groups on the TAP:Teacher item suggests much effect upon Leaders attempting to interact with teachers and peers. Although none of the hypotheses could be firmly accepted, results indicate the Leadership experience may have contributed to increased sense of efficacy for males, especially Negatives.

Further Discussion

It is the opinion of this experimenter that there is much need for further research regarding the definition and measurement of the variable labelled social efficacy in the school. The items seemed clear in meaning to the Ss, according to reports of testers. Ss responded readily. The validity of the questions as measuring the theoretical construct of efficacy needs to be tested.

At least four specific sets of questions need to be answered.

1. Do children develop generalized concepts of efficacy in relation to specific elements of the environment over time? Or are responses usually situation-specific, existential?

2. How do different student populations respond to such items? Was the lack of discriminating results a function of the type of school and pupil enrollment?

3. Were the most productive questions asked? Do they tap a generalized perception?

4. Is there a delay between changed attitude and changed self-report? Do children regard changed perceptions tentatively, subject to reversion when the change-agent (person or experience, role) is removed? Are they slow to commit themselves on paper to change?

In response to the last question, it was observed that many children had great difficulty perceiving themselves as having the power to effect change in their school. Furthermore, after agreeing to attempt changing "things," negative expectations were often confirmed by the outcomes of efforts to accomplish tasks. In some cases the ability to be successful was regarded as possible only because of the supportive assistance of the Leadership Advisor. Much concern was expressed by some individual Leaders that once they were no longer a Leader, "things" would go back to what they were before the experience. This was an accurate assessment of the school environment which did resist, more than encourage, change.

The experimenter observed that students were remarkably realistic when assessing their amount of personal control over reinforcements in the environment. Even the most cooperative teachers were reluctant to grant power to pupils and to allow them to carry out tasks which, in the teacher's opinions, might result in disruptive behavior.

Measures of Attitude Toward School

Research Hypothesis

The next major area of analysis pertained to the effect of participation in the intervention upon attitude toward school. The

inventory designed to measure this variable (TAMS: see Appendix I-6), was constructed to provide a global score reflecting a "general attitude" and to allow analysis of the attitude related to specific areas of school life. The reader will recall from Chapter II that the theoretical factors comprising the TAMS questionnaire are: 1) Perceived efficacy of students in the school environment (Power); 2) Relations with peers (Social); 3) Relations with adults (Teachers); 4) Attitude toward class work (Work); 5) Attitude toward attending the school (Liking for School); and 6) General attitude toward school (Total). Since the Power items were reported in relation to sense of efficacy, they will not be included here. The results on attitude toward Work will not be included since the intervention did not change curriculum or instruction. Responses are on a scale of 1 (most negative) to 4 (most positive). The Total includes 47 items and all factors, except Liking for School, contain eight items.

It was hypothesized that those Ss participating in the Leadership Program would report more positive feelings and perceptions regarding their school at the conclusion of the experience. Although the Total score was expected to provide this information, the items grouped into subareas previously cited were used to look for any more specific effects upon attitudes. The matrix providing the correlations between parts of the questionnaire as well as pre-post reliability coefficients for the control group can be found in Appendix III-2c. Inter-item correlation coefficients for the theoretical factors and Total were reported in Chapter II and in Appendix I-7.

TABLE 30

SUMMARY OF ANOVA RESULTS ON TAMS
(Attitude toward School)

Source	df	Total MS	Total F	Social MS	Social F	Teachers MS	Teachers F	Work MS	Work F	Liking School MS	Liking School F
Mean	1	1806425.	—	44141.63	—	50125.70	—	62392.78	—	21243.76	—
Between Subjects:											
Grouping (G)	1	57.78	.21	.63	.04	14.45	1.03	0.00	0.00	.63	.04
Attitude (P)	1	4301.28	***15.87	25.38	1.73	187.70	**13.42	331.53	**17.41	18.76	1.32
Sex (S)	1	1116.28	**4.12	1.32	.09	73.51	**5.26	36.13	1.90	14.45	1.02
Teacher Group (T)	1	450.80	1.66	10.70	.73	59.13	**4.23	6.13	.32	9.57	.67
Measure (M)	1	46.50	.26	1.32	.18	29.07	*2.78	.28	.03	4.88	.71
G×P	1	38.28	.14	41.63	*2.83	6.57	.47	1.13	.06	.95	.07
G×S	1	457.53	1.69	21.94	1.49	10.70	.76	13.78	.72	5.76	.40
P×S	1	1937.53	**7.15	146.63	***9.97	48.76	*3.49	66.13	*3.47	20.32	1.43
G×T	1	450.80	1.66	21.95	1.49	6.57	.47	81.28	**4.27	2.82	.20
P×T	1	136.13	.50	.95	.06	9.57	.68	3.13	.16	10.70	.75
S×T	1	210.13	.78	6.57	.45	.63	.05	1.53	.08	4.13	.29
G×M	1	2.00	.01	.63	.09	2.82	.27	3.13	.31	7.51	1.09
P×M	1	66.13	.42	.63	.09	1.32	.13	.78	.08	1.76	.25
S×M	1	544.53	*3.47	53.82	***7.46	11.88	1.16	15.13	1.50	.20	.03
T×M	1	318.78	2.03	4.13	.57	5.70	.55	18.00	1.78	.78	.00
GPS	1	175.78	.65	.38	.03	10.70	.76	7.03	.37	.38	.03
GPT	1	28.13	.10	1.32	.09	.78	.00	5.28	.28	.38	.03
GST	1	378.13	1.40	14.45	.98	1.76	.13	24.50	1.29	17.26	1.21
PST	1	1250.00	**4.61	4.13	.28	6.57	.47	94.53	**4.96	33.01	2.32
GPM	1	120.13	.76	9.57	1.33	3.45	.34	2.66	.20	6.57	.95
GSM	1	84.50	.54	.78	.00	6.57	.64	7.03	.70	1.32	.19
PSM	1	10.13	.06	.70	.01	13.13	1.28	15.13	1.58	.95	.14
GTM	1	108.78	.69	10.70	1.48	18.76	1.83	42.33	**4.71	.63	.09
PTM	1	116.28	.74	.70	.01	2.26	.22	8.66	.79	7.51	1.09
STM	1	294.03	1.87	9.57	1.33	2.82	.27	11.28	1.12	15.82	2.29
GPST	1	337.99	1.25	18.76	1.28	15.82	1.13	45.12	2.37	15.82	1.11
GPSM	1	3.12	.02	2.26	.31	6.57	.64	9.03	.89	.78	.00
GPTM	1	47.53	.30	4.88	.68	.70	.01	1.53	.15	.20	.03
GSTM	1	34.03	.22	.78	.00	1.32	.13	8.00	.79	.95	.14
PSTM	1	11.27	.07	27.28	*3.77	11.88	1.16	16.53	1.64	1.32	.19
GPSTM	1	47.55	.30	7.51	1.04	8.51	.83	.12	.01	8.51	1.23
Within Subjects:											
R(GPST)	48	270.97		14.71		13.99		19.04		14.23	
RM(GPST)	48	157.07		7.21		10.28		10.09		6.90	

Critical F Values: df 1, 48

*** $p \leq .01$, 7.19
** $p \leq .05$, 4.04
* $p \leq .10$, 2.82

Results

Analysis of variance was computed for the overall score and for the theoretical factors. Table 30 reveals no evidence that the hypothesis can be accepted.

Even though there was no evidence of significant treatment effect, there were some significant differences between groups of Ss in attitude toward school which should be reported.

Total Attitude Toward School:

Significant differences on the mean Total response occurred, as would be expected, for subject attitude and sex. Ss classified as Positive toward school were in fact more positive across time, as were females. The most positive group of students were the Positive females (see tables below). They reported significantly more favorable attitudes toward school than did Negative females or Positive males ($p < .01$ for both comparisons).

Table 31

Mean Total Scores for Ss by Attitude on TAMS: Total

Positives	Negatives
124.59	113.00

P: $F = 15.87$, $p < .01$

Table 32

Mean Total Scores for Ss by Sex on TAMS: Total

Males	Females
115.84	121.75

S: $F = 4.12$, $p < .05$

Table 37

Mean Total Scores for Interaction of Sex by Attitude on TAMS: Total

	Males	Females
Positive	117.75	131.44
Negative	113.94	112.06

PS: $F = 7.15$, $p < .05$

L.S.D. between means: $(p \leq .05) = 8.00$
$(p \leq .01) = 10.64$

There was some teacher effect upon general attitude as revealed in the significant PST interaction and in the means for that interaction over time (Table 34). Negative males gave significantly more favorable reports with teachers in Group One ($p < .05$), and nearly significantly better reports than Negative females in their classes. Negative males with Teacher Group Two were significantly more negative toward school than were Positive male classmates ($p < .05$).

Significant differences existed also between the responses of Positive and Negative females in both teacher groups. However, both Positive and Negative females became more positive with Teacher Group Two while all other S groups showed less positive post means. These results for females support the evidence in formal and informal teacher reports that Group Two teachers tended to favor more positive students and females, while teachers in Group One tended to demand more from them.

Table 34

Mean Total Scores for PSTM Interaction on TAMS: Total

		Teacher Group One		Teacher Group Two	
		October	February	October	February
Positives	Males	(116.75)		(118.75)	
		120.25	113.25	119.62	117.88
	Females	(134.12)		(128.75)	
		135.38	132.88	122.50	135.00
Negatives	Males	(121.25)		(106.62)	
		123.12	119.38	110.88	102.38
	Females	(110.56)		(113.56)	
		112.50	108.62	110.62	116.50

PST: $F = 4.61$, $p < .05$ PSTM: $F = .07$

L.S.D. between means: $(p \leq .05) = 12$
$(p \leq .01) = 16$

Peer Relations:

It was expected that through participation in the Leadership Program Negatives and females would perceive themselves as more socially effective and classmates as more cooperative, friendly. Results on the Social dimension of TAMS suggested no group effect. There were significant interactions between attitude and sex (PS) and between sex and time (SM) on TAMS: Social, which seemingly reflect natural changes in that student population (see Tables 35, 36). Means for Positive and Negative males over time were not significantly different, but Positive females reported significantly more favorable attitudes than did

Table 35

Mean Total Scores for Interaction between
Attitude and Sex on TAMS: Social

	Positives		Negatives	
	October	February	October	February
Males	(17.84)		(19.09)	
	18.69	17.00	19.75	18.44
Females	(20.19)		(17.16)	
	19.69	20.69	16.56	17.75

PS: $F = 9.97$, $p < .01$ PSM: $F = .06$

L.S.D. between means: $(p \leq .05) = 1.92$
$(p \leq .01) = 2.55$

Table 36

Mean Total Scores for Interaction between
Group and Sex on TAMS: Social

	Males		Females	
	October	February	October	February
Experimental	18.94	17.31	18.69	19.62
	(19.22)	(17.72)	(18.13)	(19.22)
Control	19.50	18.12	17.56	18.81

GS: $F = 1.49$, n.s.

Negative females ($p < .01$) or Positive males ($p < .05$). Reports over time from Positive females were not significantly different from those of Negative males. However, males tended to give lower self-report in February while females tended to be more positive.

The most reasonable interpretation of these results is that males perceive strong competition for social power. Therefore, male Leaders may find the social environment less cooperative and more [illegible]le. Females are generally less influential with peers but over time can gain some recognition and perceive greater social influence as the result of opportunities for leadership. Self-reported student perceptions support this explanation, especially for Positive females. There was no evidence that the intervention influenced this trend.

Teachers:

Reported attitudes toward Teachers generally became more negative during the year for all groups. On the Teacher items, there were significant main effects for attitude, sex and teacher group (see Tables 30 and 37). Positives and females reported more positive perceptions

Table 37

Mean Total Scores for Significant Main Effects on TAMS: Teachers

Positives	Negatives	Males	Females	Teacher Group One	Teacher Group Two
21.00	18.58	19.03	20.55	20.47	19.11

P: $F = 13.42$, $p < .01$ S: $F = 5.26$, $p < .05$ T: $F = 4.23$, $p < .05$

of teachers in the school than did Negatives and males. Most interesting was the significant effect for teacher group which defends the comparative descriptions of the groups. It is impossible to determine the origin of these distinguishing attitudes toward the two teacher groups. The differences may have existed between the groups on the first day of school. It also is possible that attitudes were formulated and set during the five or six weeks of school preceeding October testing. Perhaps the most accurate assumption is that both statements are true. Students and teachers tend to have established reputations within the school. Attitudes may be somewhat open to change during the first few weeks of school but probably tend to become set for the individual early in the year.

Liking for School

It was disturbing but not surprising that there were no significant differences between any groups on the four-item factor, Liking for School, nor were there positive gains pre to post. Positives and females reported liking school no more than did Negatives and males. All means became lower in February. This finding suggests a dislike for school attendance which leadership opportunity, academic success or social status did not seem to affect significantly. If the intervention had developed with full teacher support and corresponding classroom changes, the hypothesized significant differences could have been expected more reasonably. The only hint of any treatment effect was a lower pre-post correlation coefficient for Leaders (.54 for Controls, .21 for Experimentals).

Summary

In conclusion, the hypothesis for improved attitudes toward school as a result of the intervention experience must be rejected. This was a reasonable outcome considering the way in which the intervention developed. The hypothesis was based upon the expectation that teachers would fulfill their commitment to changing the emotional climate of the classroom by increasing positive reinforcements, teacher-pupil communication and cooperation, and pupil self-direction. Not only was support expected but resistance to elements of the Leadership Program were not anticipated. This resistance was most acute for Negatives and for Leaders in Teacher Group Two. Some gains by Ss working with more supportive teachers affirm the possibility that the hypothesis might have been confirmed if the intervention had been fully implemented as designed. It also is likely that to be effective in any sustaining manner, the "change agent experience" must penetrate more of the school hours than a maximum of three hours a week plus supportive tasks in the classroom and school milieu. This could have been accomplished with the skillful assistance of the teachers.

Measures of Classroom Behavior

Research Hypotheses

Behind the hypotheses previously stated was the assumption that for experimental Ss there would be changes in observable behavior often preceding changes in self-report of attitudes toward school and self. Therefore, behavioral indices of change were expected to provide the

most clear indication of treatment effect. The specific hypotheses were:

1. Experimental Ss, especially Negatives, would show significantly greater increases in constructive classroom behavior (conforming to teacher goals) during the Leadership term than would control Ss.

2. Experimental Negative Ss would show significant decreases in destructive behavior (non-conforming to teacher goals) in the classroom.

3. Experimental Ss would behave significantly less passively in the classroom while participating in the Leadership Program, as compared to control Ss.

Results

There were two sources of information about the behavior of students in the classrooms. Three times during the four-month period the teachers were asked to evaluate the students' behavior on the Behavioral Rating Form (BRF). This measure reflected teacher perceptions of subject behavior. Four times during that period, naive observers coded the students' behavior on a systematic classroom observation schedule (see Appendix I-8, 10).

The Overall score on the BRF correlated so highly with theoretical subareas of the measure that it has been used to adequately represent teacher perceptions of behavior (see Appendix III-2e). However, some additional results from subareas of the BRF will be presented briefly to provide additional clarity.

The correlations between samples of observed behavior are reported in Appendix III-2d. It should be noted that since the measures of type of behavior are interdependent percentages, the intercorrela-

tions provide limited information. This is especially true of constructive and destructive categories, but less true of the passive category. Because passivity provided some different outcomes, the results of all three will be used rather than one.

The correlations between observed and teacher-reported behavior and self-reported attitudes on pre and post measures are found in Appendix III-2f. All but one correlation between teacher-reported and actual behavior were significant beyond the .01 level. Even though there were few significant correlations between self-reported attitudes and actual behavior, most correlations between teacher-reported behavior and the attitude measures were significant at least at the .05 level. This difference may reflect an influence of teacher perception and consequent feedback upon a student's self-report. It also is argued that teacher perceptions are more accurate measures because samples of observed behavior are too limited to reveal the relationships to attitudes.

Constructive Behavior:

Hypothesis 1: Experimental Negative Ss would show significant increases in constructive classroom behavior (conforming to teacher goals) during the Leadership term.

The actual percentage of classroom behavior which was categorized as constructive was significantly different at the .01 level between Positives and Negatives and between males and females (see ANOVA Table 41). Differences were significant also between teacher groups and for the interactions between teacher group and sex. The fact that Positives

and females were higher in percent of constructive behavior confirms the teachers' classification of Ss as Positives and reaffirms the normally observed distinction between boys and girls regarding school work (see Tables 38, 39).

Table 38

Mean Percentages for Ss by Attitude on Constructive Behavior

Positives	Negatives
74.84	63.87

P: $F = 19.88$, $p < .01$

Table 39

Mean Percentages for Ss by Sex on Constructive Behavior

Males	Females
65.67	73.03

S: $F = 8.95$, $p < .01$

The significant difference between teacher groups also supports the comparative description previously offered (see Table 40): Teachers

Table 40

Mean Percentages for Ss by Teacher Group on Constructive Behavior

Teacher Group One	Teacher Group Two
72.13	66.58

T: $F = 5.09$, $p < .05$

TABLE 41

SUMMARY OF ANOVA RESULTS FOR OBSERVED AND REPORTED BEHAVIOR

Source	df	Constructive* MS	Constructive* F	Destructive* MS	Destructive* F	Passive* MS	Passive* F	df	BRF: Work MS	BRF: Work F	BRF: Peer MS	BRF: Peer F	BRF: Adults MS	BRF: Adults F	BRF: General MS	BRF: General F	BRF: Pers.-Emot. MS	BRF: Pers.-Emot. F	BRF: Overall MS	BRF: Overall F
Mean	1	1231.312	—	7765.52	—	93322.43	—	1	2315.03	—	2477.89	—	2577.67	—	2695.77	—	2302.50	—	2536.40	—
Between Subjects:																				
Grouping (G)	1	643.53	1.66	40.07	.13	1052.44	**6.93	1	.27	.00	.40	*2.2	.12	.01	.54	.53	.25	.34	.57	.01
Attitude (P)	1	7706.10	***19.88	1931.70	**6.25	1921.95	**12.66	1	42.35	***22.17	23.57	***29.34	35.62	***30.13	41.32	***41.03	33.32	***36.8	33.40	***62.91
Sex (S)	1	3469.52	***8.95	2336.15	***7.56	99.93	.66	1	2.85	1.64	.93	1.05	2.03	2.15	1.69	1.65	1.03	1.99	1.73	2.64
Teacher Group (T)	1	1973.11	**5.09	160.33	.51	971.41	**6.40	1	.12	.07	.55	.53	2.64	2.72	3.02	*2.96	3.56	**4.93	1.31	1.96
Measure (M)	3	206.64	1.23	15.47	.16	255.72	**3.55	2	.24	1.54	.86	***5.00	.79	***4.33	.41	*2.83	.72	.96	.23	*2.33
G×P	1	1501.97	*3.33	221.67	.70	534.31	*3.52	1	1.70	.97	.95	.47	1.69	1.74	.14	.81	1.03	1.49	.53	.65
G×S	1	92.46	.11	21.06	.07	139.65	.92	1	.56	.32	.29	.00	.33	.89	.49	.43	1.04	1.44	.58	.06
P×S	1	20.33	.05	58.44	.16	122.07	.80	1	.30	.17	.73	.03	.33	.03	.32	.98	.24	.00	.12	.13
G×T	1	607.56	1.57	262.98	.83	84.43	.56	1	1.62	.93	.55	.06	.16	.16	1.10	1.02	.37	.05	.24	.26
P×T	1	7.94	.02	112.25	.35	69.42	.46	1	.56	.32	.29	.00	.33	.91	2.01	1.97	1.07	1.49	.92	1.03
S×T	1	2411.13	**6.74	1509.31	**4.76	164.95	1.03	1	.57	.63	.29	.00	.33	.34	.70	.67	.35	.05	.99	.01
G×M	3	212.19	1.36	383.18	**3.17	24.44	.34	2	.59	.33	.71	.41	.11	.67	.20	1.44	.23	1.79	.80	.32
P×M	3	57.31	.34	141.13	1.47	119.02	1.53	2	.32	2.63	.13	.73	.98	***5.55	.33	.62	.39	.53	.13	1.36
S×M	3	6.96	.04	185.47	1.10	91.67	1.27	2	.41	*2.62	.99	.29	.15	.95	.31	2.19	.59	.35	.13	1.23
T×M	3	396.95	*2.35	336.31	**4.04	20.37	.29	2	.75	.48	.12	.63	.23	1.42	.85	.66	.13	.85	.90	.91
GPS	1	12.47	.03	11.38	.04	37.29	.25	1	.36	.21	.94	.10	.12	.01	.25	.82	.44	.61	.67	.03
GPT	1	54.30	.14	7.77	.02	37.99	.53	1	.53	.29	1.96	1.56	.63	.65	.32	.31	.76	1.46	.43	.53
GST	1	154.73	.40	41.24	.13	27.63	.18	1	.17	.10	.35	.38	.83	.09	.32	.31	.19	.03	.36	.10
PST	1	1403.52	*3.62	615.21	1.94	145.88	.96	1	.55	.32	.81	.61	.64	.07	.19	.19	.29	.40	.96	.05
GPM	3	139.37	.33	107.42	1.12	98.48	1.37	2	.13	.32	.16	.91	.89	.55	.11	.74	.25	1.57	.13	1.96
GSM	3	293.31	1.77	129.37	1.35	72.53	1.03	2	.23	1.74	.32	1.35	1.62	***6.24	.33	2.33	.25	1.63	.47	***4.83
PSM	3	123.31	.73	50.02	.52	99.39	1.38	2	.14	.91	.52	.32	.23	.01	.20	1.41	.10	.66	.64	.66
GTM	3	93.37	.55	57.45	.62	137.82	1.91	2	.79	.50	.19	1.68	.10	.63	.11	.75	.37	.00	.15	.15
PTM	3	135.53	1.10	137.26	1.43	104.72	1.46	2	.77	***4.93	.32	1.88	.14	.09	.50	**3.53	.31	1.99	.92	***9.30
STM	3	135.85	.80	153.77	1.61	75.79	1.05	2	.93	.60	.24	1.33	.49	.30	.31	.56	.17	1.08	.55	.52
GPST	1	132.23	.34	98.30	.23	7.86	.05	1	.17	.00	.12	.13	.22	.23	.42	.41	.57	.07	.26	.03
GPSM	3	79.56	.47	42.26	.50	42.97	.67	2	.12	.10	.42	.82	.19	.11	.50	.35	.40	.03	.29	.30
GPTM	3	1.56	.01	99.19	1.04	91.24	1.23	2	.15	.93	.10	.06	.31	1.98	.63	.94	.35	***5.99	.26	*2.69
GSTM	3	16.95	.10	26.57	.28	92.68	.59	2	.94	.60	.36	.21	.23	1.42	.14	.11	.14	.87	.47	.93
PSTM	3	223.71	1.33	91.74	.96	45.35	.64	2	.29	.13	.16	.09	.28	1.72	.52	.06	.12	.79	.34	.35
G×PSTM	3	103.75	.62	14.43	.15	51.03	.71	2	.77	.99	.76	**4.93	.38	2.31	.39	*2.75	.22	1.43	.19	1.93
Within Subjects:																				
R (GPST)	48	382.57		317.31		151.87		48	1.74		.94		.97		1.02		.72		.89	
RM (GPST)	144	163.66		95.71		71.97		96	.16		.17		.16		.14		.16		.93	

* Behavior scores are reported as mean percentages of total behavior observed.

Critical F Values:	df 1,48	df 3,144	df 2,96
*** p ≤ .01	7.19	3.91	4.82
** p ≤ .05	4.04	2.67	3.09
* p ≤ .10	2.72	2.10	2.37

in Group One created a more constructive classroom environment which allowed more constructive leadership, while teachers in Group Two had less constructive climates in which teacher attention seemed to focus more on controlling disruptive behavior than upon developing interest in work or self-direction and Leadership activity. Examination of the GPSTM table of means for constructive behavior (Table 42) helps to clarify these differences in relation to the intervention. Despite initially lower pre measures for males in Teacher Group One, all groups of experimental Ss with those teachers ended up with higher percentages of constructive classroom behavior in February and March than did experimental Ss in Teacher Group Two. Control Ss with Teacher Group One made more gains than with Group Two where percentages were more apt to remain about the same pre (October) to post (March).

Evaluation of outcomes on actual observations can be performed in two ways. The terminal measure was obtained just prior to the conclusion of the first Leadership term in February. Students knew a second term was approaching and interest was beginning to develop as to who the next Leaders would be. In many cases control Ss were anxiously waiting to find out if they would be the next Leaders. Some teachers suggested to students that constructive behavior would contribute to the selection of second-term Leaders. This may have biased positively the behavior of some control Ss during the February observation period, while the behavior of some experimental Ss may have been biased negatively due to the fact that their role was ending. Post measurement was obtained later in March for the purpose of gaining information as

Table 42

Mean Percentages for the GPSTM Interaction
Constructive Behavior

			Experimental				Control			
			October	December	February	March	October	December	February	March
Teacher Group One	Positive	Male	64.90	72.42	78.99	68.90	76.05	73.94	72.39	76.23
		Female	76.54	81.92	78.47	84.86	78.27	84.26	89.65	86.92
	Negative	Male	47.66	56.99	73.52	68.48	51.43	40.40	59.90	61.89
		Female	69.73	70.89	80.34	80.20	79.20	71.05	78.38	73.43
Teacher Group Two	Positive	Male	71.95	64.07	76.21	64.39	67.02	72.27	66.06	68.24
		Female	75.44	76.36	73.66	74.96	73.77	74.29	73.50	77.99
	Negative	Male	65.43	73.33	69.00	66.39	69.36	59.73	41.86	62.14
		Female	63.57	64.22	68.64	67.63	49.37	54.39	55.75	49.49

GPSTM: $F = .62$, n.s.

PST: $F = 3.62$, $p < .10$

to the behavior of Leaders when returned to "pre-intervention" conditions. For some Ss there appeared to be considerable negative emotion over the loss of the rank and privileges of Leader. Therefore, when gains in constructive behavior by experimental Ss were sustained from terminal to post measurement, it seems very encouraging that effects might be sustained over a significant length of time (note females in Table 42).

Because of the difference between the terminal (February) and post (March) measurements, it is meaningful to examine Table 42 excluding post measures. Such examination is suggestive of the actual behavioral changes while experimental Ss were in the position of Leaders and the control Ss were not. Experimental males increased in constructive behavior, most markedly with teachers in Group One, while control males tended to become less constructive. Negative control males became markedly less constructive over time with teachers in Group Two, but did gain in constructive behavior with teachers in Group One.

Females tended to remain about the same over time, usually having much higher mean percentages on pre assessment than did males. Negative females with Teacher Group One did seem to benefit most from the treatment, showing sustained significant gains and being surpassed only slightly on post assessment by Positive females in their classes.

The table reveals the superior gain in observed constructive behavior by Negative experimental Ss with Teacher Group One. Negatives were able to become more exemplary models of appropriate classroom behavior with those teachers. The percentages recorded for Negative

control males during the first three observations suggest that teachers in Group One possessed some skill in reversing negative behavior, while those Ss with teachers in Group Two became less and less constructive.

Teacher Perceptions of Behavior. Additional evidence regarding constructive behavior was provided by the Work items on the BRF. Teachers in Group One reported significant changes in Work behavior for Negative Leaders (see PTM Table 43). The PTM means for work behavior again substantiate the distinction between teacher groups: Negatives improved most with teachers in Group One while Positives with teachers in Group Two tended to make more gains.

Table 43

Means for the PTM Interaction for BRF: Work

		Pre	Mid	Post
Teacher Group One	Positive	4.16	3.74	3.92
	Negative	2.87	3.07	3.23
Teacher Group Two	Positive	4.10	4.04	4.16
	Negative	3.09	2.97	2.94

PTM: $F = 4.93$, $p < .01$

These results on the BRF may be a function of teacher expectancies. Teachers in Group One perhaps expected too much leadership

skill and exemplary behavior from Positives and held lower expectations for Negatives. Those teachers frequently expressed confidence that the intervention would help Negatives, while teachers in Group Two often communicated the expectation that nothing involving responsibility and privileges would help Negatives and they were apt to fail in the Leadership role. Teachers seemed to hold very similar expectations for experimental and control Ss in their classes, considering all of them to be social leaders expected to model desirable behavior and to develop leadership skill in accordance with teacher predictions.

Similar findings were obtained for the general rating of students on the BRF. Using the Overall scores, significant differences are seen again for student attitudes, and the interactions GSM and PTM (see Tables 44, 45). The GSM table indicates that male Leaders were perceived by their teachers as more constructive, generally more well

Table 44

Means for Group by Sex Interaction
on Overall BRF Ratings

		Pre	Mid	Post
Experimental	Male	3.19	3.48	3.56
	Female	3.64	3.47	3.62
Control	Male	3.42	3.26	3.43
	Female	3.56	3.61	3.62

GSM: $F = 4.83$, $p < .01$

L.S.D. between means: $(p \leq .05) = .70$
$(p \leq .01) = .93$

Table 45

Means for Ss by Attitude
and Teacher on Overall BRF

		Pre	Mid	Post
Teacher Group One	Positive	4.03	3.85	3.97
	Negative	2.98	3.25	3.34
Teacher Group Two	Positive	3.87	3.90	3.99
	Negative	2.92	2.82	2.93

PTM: $F = 4.30$, $p < .05$

L.S.D. between means: $(p \leq .05) = .70$
$(p \leq .01) = .93$

behaved, on each subsequent evaluation. The fact that this effect could be the result of teacher commitment to the original recommendation of the subject as a Leader does not deprecate that effect. Teacher commitment to developing the student's constructive leadership potential was an integral part of the treatment. The effects of more positive overall evaluations on subsequent ratings of male Leaders existed most with teachers in Group One.

The GPTM means (Table 46) again suggest the tendency of teachers in Group One to be more demanding and critical of Positives while nurturing Negatives, and of teachers in Group Two to be more supportive of Positives and more critical of Negatives.

In summary, observed and teacher-reported behavior indicate the hypothesis of more constructive classroom behavior can be accepted very tentatively for Negative experimental Ss with teachers in Group

Table 46

Means for GPTM Interaction on BRF: Overall

			Pre	Mid	Post
Experimental	Teacher Group One	Positive	3.86	3.74	3.84
		Negative	3.04	3.30	3.47
	Teacher Group Two	Positive	3.95	3.85	4.07
		Negative	2.82	3.01	2.97
Control	Teacher Group One	Positive	4.20	3.96	4.09
		Negative	2.93	3.20	3.22
	Teacher Group Two	Positive	3.80	3.95	3.91
		Negative	3.03	2.62	2.88

GPTM: $F = 2.69$, n.s.

L.S.D. between means: $(p \leq .05) = .99$
$(p \leq .01) = 1.39$

One. It is important to note that there was no clear effect from participation in the intervention upon work behavior of all experimental Ss. The effect of improved classroom behavior appears to be more directly the result of teacher behavior which supported the intervention experience by providing students with some encouragement, guidance, and opportunities to be successful in Leadership tasks. To what extent this teacher behavior resulted from the teacher training aspect of the intervention was not measurable. Specifically, the outcomes indicate teacher support is essential for changes in classroom behavior to be developed and sustained as the result of such an intervention.

Destructive Behavior:

Hypothesis 2: Experimental Negative Ss would show significant decreases in destructive behavior (non-conforming to teacher goals) in the classroom.

The actual observations in the classroom again revealed significant main effects for attitude and sex, and significant interactions of teacher group with sex and time (see ANOVA Table 41). Negatives and males were more "destructive" or non-conforming to teacher goals (Tables 47, 48). The interaction between teachers and time revealed that the Ss with teachers in Group Two tended to become more destructive (see Table 49).

Table 47

Mean Percentages for Ss by Attitude on Destructive Behavior

Positives	Negatives
14.74	20.31

P: $F = 6.25$, $p < .05$

Table 48

Mean Percentages for Ss by Sex on Destructive Behavior

Males	Females
20.54	14.50

S: $F = 7.36$, $p < .01$

Table 49

Mean Percentages for Interaction Between Teacher and Time on Destructive Behavior

	October	December	February	March
Teacher Group One	19.21	17.85	14.42	15.45
Teacher Group Two	15.88	16.47	22.00	18.91

TM: $F = 4.04$, $p < .05$

Looking at the GSTM means (Table 50), destructive behavior increased for all groups of control Ss except females with Teacher Group One. Destructive behavior decreased markedly for Leaders with Teacher Group One but males became more disruptive on the post measure, probably related to their loss of power. With Teacher Group Two, there was an initial decrease in destructive behavior during the period when Leaders were analyzing needed improvements in the school and planning to effect change. During the second period, when Leaders carried out specific tasks to effect change, Leaders with that teacher group became more "destructive" during class time than had been observed on the pre measure. The male Leaders with Teacher Group Two continued to rise in percentage of undesirable behavior while female Leaders decreased destructive activity on post assessment to below their pre mean. One can speculate as to whether the destructive behavior of Leaders in Teacher Group Two was primarily poor efforts to carry out Leader tasks through classroom peer interaction or whether it was a return of negative behavior, venting frustration with the classroom situation. It was this group of Leaders who often reported intense frustration with teachers in trying to gain teacher help or the opportunity to carry out their Leadership tasks.

The GSTM table (Table 54) shows that destructive behavior was reduced more than 50 percent during the Leadership experience (October to February) for Negative experimental Ss in Teacher Group One. In Teacher Group Two the Negative Leaders reduced destructive behavior initially but returned to the original mean percent on terminal (February)

Table 50

Mean Percentages for the GSTM Interaction: Destructive Behavior

		Experimental				Control			
		October	December	February	March	October	December	February	March
Teacher Group One	Males	29.56	27.82	13.52	23.00	18.68	22.90	22.94	19.03
	Females	16.72	12.07	11.56	10.67	11.88	8.60	9.46	9.10
Teacher Group Two	Males	16.45	14.99	17.46	20.56	13.28	15.66	26.57	19.85
	Females	17.26	14.02	18.96	15.44	16.55	21.21	23.93	14.43

GSTM: F = .28, n.s.

and post (March) measures. All groups of control Ss, during the first three observations, increased in destructive behaviors, except for Negatives in Teacher Group One, who remained the same. The increase in destructive behavior for Negative control Ss in Teacher Group Two was about 100 percent.

Post assessment indicates that destructive behavior remained below October means for Positive and Negative Ss with Teacher Group One while those with Teacher Group Two tended to remain more destructive than on pre-assessment.

In conclusion, there is insufficient evidence that destructive behavior was reduced significantly for all Ss by participation in the intervention. The hypothesis does seem reasonable at least for Negative Ss with teachers in Group One. The Leadership experience seemed to help improve the classroom behavior of Negative students where teacher behavior was supportive of the goals of the treatment. Attention should be focused on methods of sustaining improved behavior once the Leadership term is ended.

One might expect to find that teachers in Group One consistently evaluated their Ss more favorably while teachers in Group Two did not. This was not the case. The teachers' reports on relationships with adults or peers did not reflect the teacher group differences in observed "destructive" behavior (Tables 51, 52, 53). There was some evidence that all teachers became slightly more positive over time. This could result from teacher desire to perceive improved behavior as evidence of teacher competence. (See GPTM Table 54.)

Table 51

Means Across Time
BRF: Peers

Pre	Mid	Post
3.50	3.55	3.72

M: $F = 5.00$, $p < .01$

Table 52

Means for Ss by Attitude
Across Time on BRF: Peers

	Pre	Mid	Post	$\bar{X}_t$
Positive	3.90	3.88	4.13	3.97
Negative	3.10	3.23	3.31	3.21

PM: $F = .73$, n.s. P: $F = 29.34$, $p < .01$

Table 53

Means for Group by Sex
Interaction Across Time for BRF: Adults

		Pre	Mid	Post
Experimental	Male	3.27	3.75	3.70
	Female	3.75	3.55	3.92
Control	Male	3.53	3.45	3.66
	Female	3.67	3.89	3.83

GSM: $F = 6.26$, $p < .01$

Table 54

Mean Percentages for the GPTM Interaction: Destructive Behavior

		Experimental				Control			
		October	December	February	March	October	December	February	March
Teacher Group One	Positives	18.01	15.70	12.82	16.67	10.45	11.05	12.32	9.27
	Negatives	28.27	24.18	12.46	17.00	20.11	20.46	20.08	18.85
Teacher Group Two	Positives	13.34	14.29	17.46	20.56	12.11	15.21	17.01	19.93
	Negatives	20.38	14.72	20.05	21.10	17.75	21.66	33.49	14.34

GPTM: $F = 1.04$, n.s.

Passive Behavior:

Hypothesis 3: Experimental Ss would behave significantly less passively in the classroom while participating in the Leadership Program, as compared to control Ss.

ANOVA resulted in significant main effects for observed passive behavior for group, attitude, and teacher (see ANOVA Table 41). Passivity was significantly more prevalent with Negatives, control Ss, and with students in Teacher Group Two (Tables 55, 56, 57).

Table 55

Mean Percentages for Ss by Attitude on Passive Behavior

Positives	Negatives
10.34	15.82

P: $F = 12.66$, $p < .01$

Table 56

Mean Percentages for Ss by Condition on Passive Behavior

Experimental	Control
11.06	15.11

G: $F = 6.93$, $p < .05$

Table 57

Mean Percentages for Ss by Teacher Group on Passive Behavior

Teacher Group One	Teacher Group Two
11.14	15.03

T: $F = 6.40$, $p < .05$

The GM means reveal that the experimental Ss became gradually less passive over time while the control Ss showed only a slight difference

pre to post (Table 58). Ignoring the treatment groups, the PM means (Table 59) show that Positives steadily became and remained less passive in class while Negatives fluctuated and ended up with little pre-to-post difference. Perhaps the fluctuation of Negatives reflects lack of skill in becoming constructive. Passivity could serve to replace destructive behavior until methods of being constructive are known or usable.

Table 58

Mean Percentages for Ss by Group Over Time on Passive Behavior

	October	December	February	March
Experimental	13.09	12.42	9.45	9.26
Control	16.84	16.61	12.09	14.90

GM: F = .34, n.s.

Table 59

Mean Percentages for Ss by Attitude Over Time on Passive Behavior

	October	December	February	March
Positives	13.54	10.67	8.98	8.20
Negatives	16.40	18.37	12.56	15.97

PM: F = 1.53, n.s.

Since the significant results were obtained for the main effects of attitude, condition, and teacher group apart from time, there is

insufficient evidence that the hypothesis can be accepted. It would appear that a trend exists for Positives to become less passive during the year, perhaps due to their ability to develop constructive tools for gaining success. The group effect across time (GM) definitely shows a trend in the predicted direction.

Summary

None of the hypotheses can be firmly accepted as stated on the basis of actual classroom behavior observed. However, there is strong evidence that ii teachers encourage constructive leadership and develop the necessary skills in students, Negative students especially profit from Leadership experience in the directions hypothesized. Hypotheses predicting significantly more constructive and less destructive behavior could be accepted cautiously for Negative Ss with Teacher Group One. Leaders with Teacher Group Two seemed to begin to change in the same direction as predicted but reverted to original patterns of behavior, probably due to a lack of skill or opportunity to be successful. One may conclude that Leadership experience can help to modify the behavior of socially powerful Negative students if the teachers provide support in the classroom. And, Leadership experience may help Positive students become less passive in the classroom.

As was stated earlier, one must be cautious in generalizing from observation samples of human behavior. An average of 50 to 61 "rounds" of behavior were recorded per subject during each observation period. The rounds were collected during approximately four two-hour periods of classroom activity. Some of the variability may result from

chance in the sampling. Another potential bias to consider is the fact that teachers often were uncomfortable about having observers in the classroom. Students sometimes were heard commenting about a "threat" such as eliminating recess if behavior was not "good" while "visitors" were in the room. Some teachers tended to select activities where evaluation of their classroom control would be difficult. And, occasionally, ill students were observed.

In light of these restrictions placed upon the behavior samples, the outcomes gain more significance. Any consistent trends should be regarded seriously. The charted behavior in Appendix III-5 comparing the Negative Ss shows graphically that Negative Leaders became a more homogeneous group which behaved more constructively at the terminal point (February). This was most true of males, who had the greatest need of improvement initially.

CHAPTER IV

POST HOC ANALYSES

In addition to the basic analyses reported in Chapter III, some hypotheses for further analyses were generated through perusal of the data themselves. Some of the more meaningful findings from those analyses will be reported in this chapter. Topics to be included pertain to Peer Nominations, Comparative Study of Pre-Post Correlation Coefficients, and Performance Rank. Some less empirical analyses will be reported and data profiles of individual Ss presented.

Prediction Based on Peer Nominations

The questions posed were: 1) "Is comparatively high or low ranking on Peer Nominations predictive of success as a Leader and, thus, the effectiveness of the intervention?" 2) "Do students who receive a high number of nominations tend to make constructive gains in attitudes and behavior during the year regardless of the treatment condition?"

For preliminary analysis the Ss had been grouped according to the number of Peer Nominations received: 0, 1, 2-5, 6-9, or more than 10. Due to low frequencies at the ends of the scale, Ss were regrouped as comparatively low or high (0-5 as compared to 6-10+ nominations). As was seen in Table 23, the experimental and control groups were comparable in distribution of Ss between the groups.

Means and standard deviations were obtained for all variables

with Ss grouped as experimental or control and low or high in Peer Nominations. ANOVA was not computed, but the means reveal interesting results. It appears that regardless of whether the Experimental-High group reported the lowest, similar, or highest pre mean on a number of variables, that group produced the highest post mean. Below in Table 60 are samples of the post measurement results. Means for the pre measure with Ss grouped according to the October Peer Nominations are found in parentheses for comparison.

The trend was present also in the results of Sears' Social Virtues and Work Habits and TAMS attitudes toward school. It did not exist for Gordon's measures or for constructive and destructive behavior.

On the pre measures in October, experimental and control Ss ranking high on Peer Nominations reported higher overall self-concepts on the Sears inventory. On measures of locus-of-control and passive behavior, however, in spite of random assignment to treatments, the control group often had pre means higher than the experimental group. Regardless of initial differences, the Experimental-High group produced the highest means on post assessment (except on passive behavior where that group was observed having the desirable lowest mean percentage in February).

The findings shown in Table 60 suggest that students who are regarded as more influential among peers do become more positive in self-attitude over time. However, those participating in the Leadership Program were consistently highest on the post means for the cited variables and often the Control-High group showed a large loss on

Table 60

Means on Selected Variables for Ss Grouped According to Treatment Condition and Ranking Low or High on Peer Nominations

	Sears Total SC			Happy Qualities			Social Relations	
	Low	High		Low	High		Low	High
E	(3.21) 3.13	(3.50) 3.57	E	(3.44) 3.32	(3.66) 3.70	E	(3.96) 3.27	(3.32) 3.84
C	(3.24) 3.31	(3.67) 3.39	C	(3.45) 3.38	(3.66) 3.41	C	(2.89) 3.01	(3.81) 3.59
	Hess: Internal Failure			Hess: Internal Total			% Passive Behavior	
	Low	High		Low	High		Low	High
E	(5.08) 5.47	(5.24) 6.42	E	(10.67) 11.00	(11.21) 11.77	E	(13.01) 10.55	(13.24) 7.82
C	(5.53) 5.72	(6.15) 4.93	C	(11.13) 11.33	(12.40) 10.36	C	(19.65) 18.26	(16.98) 10.58

post-assessment. Therefore, the Leadership Program seemed most beneficial to those already possessing a large amount of social power and failure to be included in such a program may have contributed to a loss of self-esteem and sense of power for similar youngsters.

Comparison of Correlations for Experimental and Control Groups, and for Positive and Negative Subjects

Pre to post correlations were obtained for Ss grouped by treatment condition and by attitude. It was expected that the control Ss would be more consistent from October to February on all measures since attitudes are relatively stable and no intervention was provided for them. Greater variation and, therefore, lower pre-post coefficients were anticipated for the experimental Ss. One could expect responses to become more negative if the Leadership experience was perceived as frustrating and unsuccessful by Ss. If a subject perceived himself as a successful Leader, one could expect more positive responses on post measures of attitudes.

The pre-post coefficients for experimental and control groups on all major variables are found in Appendix III-3. Three of the significantly different correlations will be discussed to illustrate the findings.

On the Measure of Social Virtues:

Most interesting was the difference between the experimental and control groups on pre-post coefficients for Social Virtues. As was mentioned in Chapter III, although the pre-post coefficient on Social Virtues for the total sample was .37, the coefficients for the experi-

mental and control groups were .70 and .07, respectively. The difference was significant at better than the .01 level of confidence.

The reader will recall that items in this subarea of the Sears inventory request self-evaluation regarding the individual's practice of being sensitive to the feelings of others, being easy to get along with, and letting others have their own way sometimes. These behaviors were primary targets or goals of the Leadership Program. Leaders were engaged in role playing and transactional analysis requiring them to analyze basic dynamics of cause and effect related to the student-identified problems in the school of excessive fighting and verbal agitation ("capping"). Furthermore, the Leaders pledged themselves to being models of desirable behavior demonstrating how to prevent fights by being kind and sensitive to others.

Since the items comprising this scale were behavioral objectives of the Leadership Program, one might expect Leaders to have become more aware of these behaviors and to have evaluated themselves more realistically and accurately on post measures. The post responses of experimental Ss also could be a function of cognitive dissonance if initial scores were high, as there was emphasis upon living up to self-selected expectations by maintaining an image of oneself as being a sensitive, self-controlled Leader. Having made a public commitment to manifest those desirable traits, post self-report could be expected to reflect positive bias. However, as Tables 8 and 9 show, control Ss tended to have higher means in October and most of the means of experimental Ss did not rise.

Unexpectedly, the experimental Ss responded more similarly on pre and post assessment. Individual control Ss showed more extreme departures from pre to post testing. Thus, the expectation of less consistency for the experimental group was not confirmed.

In attempting to interpret the pre-post changes of control Ss, the following thoughts based upon plotted scores may be offered. Some control Ss initially lower on this measure probably responded defensively high on post-testing. This could occur because of verbalized expectations and social pressure for such behaviors in the school, desire to compete favorably with the Leaders, or aspiration to become a Leader the second term. In addition to some control Ss changing from low self-report in October to high report in February, some Ss changed in the opposite direction. Perhaps those control Ss initially higher and showing marked loss pre to post were reporting a true self-depreciation since Leaders in their classrooms had been perceived as more able to demonstrate effectively the desired behaviors. It was also true that some control Ss often gave the Leaders the most resistance in their work because they had perceived themselves as very powerful social leaders and, after failing to be selected as Leaders, feared losing influence and status. Thus, some were not cooperative and challenged the power of Leaders with rather regular frequency. Most of those control Ss did not appear sensitive to the difficulty many Leaders experienced in trying to model behaviors and influence peers. Therefore, depreciated post self-report on Social Virtues may have been based upon reality.

These interpretations are speculative and are most valuable as

stimuli for further study. All conclusions regarding Social Virtues are spurious at this point because of the weak coefficient for internal consistency on this four-item measure in this study (see Appendix I-7). More extensive tests of inter-item reliability on subareas of the Sears measure will be available soon from the Stanford Center for Research and Development in Teaching.

On the Special Focus Measure of Self-Concept:

Although the pre-post coefficients were similar for the experimental and control groups on Gordon: Special Focus, there was a significant difference (p=.06) between Positives in both conditions. The coefficient for Experimental-Positives was +.52; it was -.17 for Control-Positives (see Appendix III-3). Plots indicated that the negative direction for control Ss was due largely to higher pre means for some Ss. The slope perhaps was exaggerated by the lower n of 16 for each group.

The items on this measure requested responses based on personal feelings and evaluations of self in the school setting. Performance Ranking revealed that Positive Leaders generally ranked higher than Negatives in quality of performance as Leaders. Peer Nominations and teacher evaluations indicated they received more peer and teacher support. It follows, then, that Positive Leaders would be least apt to report more negative self-perceptions in February. Since in October Positives were significantly more positive in self-report than were Negatives, and Positive Leaders experienced reinforcing social success during the four-month period, the high pre-post coefficient for Positive

experimental Ss is understandable.

The less predictable response of the Control-Positives can be interpreted essentially as it was for the control Ss regarding Social Virtues, but there were many more marked decreases in positive self-evaluation in February. Control-Positives perhaps were more self-critical due to a lack of opportunity to become more self-directive and efficacious in the Leadership role. Not having the opportunity to be a Leader may have produced increased dissatisfaction with self and tension with peer and teacher relationships. These results do suggest significant benefits to Positive Ss from participation in the Leadership Program. Such experiences at least help to sustain more positive self-concepts.

On the TAMS Measure of Power:

One final difference in correlations to be reported is for TAMS: Power. On a two-tailed test based on the null hypothesis, the coefficient of +.45 for Positives was significant at the .01 level and the coefficient of -.25 for Negatives approached the .10 level of confidence (df=30). The difference in pre-post coefficients for Positives and Negatives, across experimental and control conditions, was significant at the .07 level (see Appendix III-3). The plotted scores showed a dramatic difference with Positives tending to be consistent in response and Negatives tending to be reversed in their self-evaluation pre to post.

A difference was expected between experimental and control groups on measures of Power, but it appears that the trait of being a Negative

or a Positive person in the perceptions of teachers bears more predictive influence upon report on this measure than does the intervention experience. One should recall that the Power items on TAMS request the student to evaluate the amount of power students generally have in the school. It is reasonable that Negatives see less opportunity in the school to be efficacious or "have a say in things" since they are the target of disciplinary action most often. It is reasonable also to assume that Negative Ss may be less consistent in evaluating this area of school life since most of them experience "ups and downs" in relationship to the adult authorities in the school.

Negative students experience heavy external controls upon their behavior at times and also are given opportunities to become more self-controlled. The test response of individual Negative Ss might vary more from day to day. One could conjecture that students who in the fall were perceived and classified by teachers as Negative social leaders, and who on TAMS reported perceptions of relatively high student power existing in the school, were more apt to encounter heavy external controls during the four months. By comparison, Negative students reporting less student power may have been less aggressive and received more opportunity to assert self-direction, consequently encountering less external control and reporting more student power in February.

These results do reflect the difficulties of Negative Ss in attempting to become self-directive in the classroom and school environment. Many lacked skills for effectively utilizing opportunities for constructive leadership. Less hostile Negatives were sometimes

more successful in receiving teacher and peer cooperation.

One last word of caution must be stated regarding the value of these correlations reported in this section. The findings based on TAMS: Power can be regarded with considerable confidence because of the high coefficient of .62 for internal consistency, in spite of a pre-post correlation for the total sample of nearly zero. Low pre-post coefficients for Social Virtues and Special Focus (Appendix I-7) impose extreme caution upon the researcher. Perhaps coefficients for internal consistency currently being obtained for those measures will reveal the value of this analysis.

Another restriction upon the value of these correlations is the fact that the measures were comprised of four to eight items and sometimes were based upon an n of 16. Coefficients for TAP items were not discussed because of the spurious character of correlations based upon one item. The information about comparisons of correlations is offered more for heuristic purposes than for formulating generalizations or conclusions.

Analysis of the Experimental Ss Grouped by Performance Rank

It was observed that experimental Ss varied considerably in the amount of personal success perceived and in their willingness or ability to perform the Leadership tasks. That observation provoked the question, "How did perceived personal success and conduct as a Leader affect the responses of the individual on post measures?" It was hypothesized that those who perceived greater success and were recognized publicly for desirable conduct would show greater gains on post attitude measures.

Conversely, it was expected that those who were frustrated by the role or perceived personal inability to be successful and dropped out, or became occasional and passive participants, would report losses on post measures. In the post hoc analysis it was expected that Performance Rank would correlate significantly with many of the variables.

Before reporting the correlations and ANOVA computed, the reader should recall from Chapter II the method of obtaining the Performance Rank. Experimental Ss were ranked by the experimenter according to performance recorded in Leadership meetings. The performance was defined behaviorally and rated on a scale of negative to very enthused and responsive. Behaviors recorded included promptness, attention during the meeting, contribution to the discussion or activity, and follow-through between meetings on such projects as self-monitoring. The rankings were made for behavior during November and December and for the period including January and February. The two rank scores were averaged for each individual and a Total Performance Rank was thus obtained. Then the ranking was divided into quartiles of eight Ss each. Quartile 1 included those Leaders who were most effective, Quartile 2 was next in effectiveness, Quartile 3 included the more inconsistent or ambivalent Ss, and Quartile 4 was comprised of Ss who were very passive and minimally involved or dropped out of the Program.

Table 61 shows that only one Negative S ranked in the first (most effective) quartile. Eleven of the 16 Negative Ss ranked 3 or 4 while only six of the 16 Positive Ss held that ranking. Six of the eight Ss ranked 4 were in the classes of teachers in Group Two.

Table 61

The Performance Ranking of Leaders in Each Class

		Grade Four			Grade Five		Grade Six		
Teacher Group		Class 1 T-2	Class 2 T-1	Class 3 T-2	Class 4 T-1	Class 5 T-1	Class 6 T-2	Class 7 T-2	Class 8 T-1
Positive	M	1	2	3	3	1	4	1	3
	F	1	1	4	2	3	2	1	1
Negative	M	2	2	4	3	4	4	2	1
	F	3	3	4	3	4	2	4	3

1 = top quartile, most effective 4 = lowest quartile, least effective

Table 62

Correlations of Performance Rank with Post Measures

Social Relations	**+.40	Hess: I-Failure	+.26	Tams: Social	+.21
Social Virtues	*+.35	Hess: I-Total	*+.37	Tams: Work	***+.55
Work Habits	+.27	Kids Listen	+.20	Tams: Teacher	**+.42
Happy Qualities	+.25	Teachers Help	**+.43	Tams: Like School	**+.44
Sears Total SC	*+.31	Principal Helps	+.14	Tams: Total	***+.55
Gordon: Special	*+.33	Peer Nomination (Feb.)	**+.47	Academic Rating	+.22
Gordon: Total	+.09	Tams: Power	+.19	BRF: Overall	*+.33

Behavior: Constructive +.23; Destructive -.04; Passive *-.36

Note: The value of ranks was reversed to produce positive correlations.

* = $p < .05$; ** = $p < .01$; *** = $p < .001$

The correlations obtained between Performance Rank and self-reported attitudes on post measures and observed terminal behavior are provided in Table 62. The results of ANOVA are summarized in Table 63, which also includes means. The prediction was accurate: the degree of success in the Leadership role did bear significant influence upon post measures of attitude. The more consistent and successful the Leadership behavior of experimental Ss, the higher are the self-reports of attitudes toward self and school in February. Less consistent and effective observed Leadership behavior is associated with less positive responses on post measures of attitude.

Table 63 provides the means and ANOVA results for performance-ranked Ss on pre and post measures. There were only two variables for which there were differences significant at greater than the .05 level between the four groups on pre measurement. The ranked groups were significantly different in October on the Gordon:Total self-concept score ($p < .05$); means show that the Rank 1 group was highest and the Rank 2 group was lowest. Ss also differed initially on the TAMS' items for Social Relations (.05 level of significance) and the rank order of pre means paralleled the groupings by Performance Rank. It is possible that self-reported perceptions of peer social relations in the school was predictive of Performance Rank at the conclusion of the intervention. It is meaningful to note that there was not a significant difference on post measurement of TAMS: Social Relations, but the rank order of means remained approximately the same as in October. One may conclude that the Leadership experience reduced disparity between the

TABLE 63

Summary of ANOVA Results and Means For Ss Grouped by Performance Rank

Performance Rank: (1=highest, 4=lowest)		1	2	3	4	F	df	MS_B	MS_W
Self Concept									
Sears: Social Relations	pre	3.47	3.69	3.67	3.42	.24	3,28	.15	.63
	post	3.91	3.53	3.46	3.14	1.84	3,28	.84	.46
Social Virtues	pre	3.16	3.00	3.21	2.67	.79	3,28	.50	.64
	post	3.50	2.81	3.00	2.72	2.24	3,28	.99	.44
Work Habits	pre	3.53	3.19	2.93	3.39	.74	3,28	.51	.69
	post	3.66	3.00	3.11	3.00	1.37	3,28	.80	.58
Happy Qualities	pre	3.63	3.19	3.79	3.67	1.03	3,28	.53	.52
	post	3.84	3.38	3.43	3.36	1.01	3,28	.43	.42
Total Self-Concept	pre	3.61	3.21	3.60	3.18	1.76	3,28	.45	.26
	post	3.76	3.09	3.38	3.15	***2.61	3,28	.74	.29
Gordon*: Special Focus	pre	67.00	53.75	58.71	59.11	**2.51	3,28	239.80	95.42
	post	61.50	55.00	57.60	52.22	1.58	3,28	122.64	80.77
Total Self-Concept	pre	3.92	3.02	3.34	3.29	**4.50	3,28	1.14	.25
	post	3.43	3.19	3.31	3.28	.42	3,28	.07	.18
Locus-of-Control									
*Hess: Internal, Failure	pre	6.00	3.62	5.57	5.56	***2.43	3,28	9.02	3.71
	post	7.12	5.00	6.86	5.00	**2.69	3,28	10.71	3.99
Internal, Total	pre	12.50	9.62	10.71	11.22	***2.29	3,28	11.37	4.96
	post	13.00	11.00	12.71	9.22	**2.99	3,28	25.50	8.54
Social Efficacy									
TAP: Kids Listen	pre	2.62	2.25	2.71	2.00	1.21	3,28	.90	.74
	post	2.63	2.88	2.71	2.22	.94	3,28	.66	.70
Teacher Helps	pre	2.88	2.88	3.71	3.11	1.45	3,28	1.14	.79
	post	2.88	3.50	2.43	1.89	**4.30	3,28	3.91	.91
Principal Helps	pre	3.00	2.13	1.86	2.78	**2.47	3,28	2.23	.90
	post	2.50	2.50	2.00	3.00	1.42	3,28	1.32	.93
Attitude toward School									
*TAMS: Power	pre	20.87	18.13	20.86	21.00	1.64	3,28	15.62	9.52
	post	22.00	19.62	22.00	19.78	1.97	3,28	14.01	7.12
Social Relations	pre	21.50	19.25	18.00	16.67	**3.62	3,28	13.12	9.70
	post	19.88	18.38	17.43	18.11	.70	3,28	8.21	11.76
Work	pre	23.75	22.37	20.00	22.33	1.53	3,28	17.83	11.69
	post	25.88	22.00	19.43	20.44	*6.39	3,28	62.72	9.81
Teachers	pre	19.88	19.13	21.00	19.33	.52	3,28	5.24	10.13
	post	22.00	18.75	19.00	17.00	**2.38	3,28	36.00	15.12
Liking School	pre	13.50	15.00	12.43	12.11	1.20	3,28	13.30	11.52
	post	14.50	12.25	11.57	11.22	***2.82	3,28	17.58	6.24
Overall Attitude	pre	12.81	11.86	11.86	11.52	1.63	3,28	25.88	15.88
	post	13.00	11.00	11.14	10.56	*4.68	3,28	9.55	2.04
Behavior									
Percent Destructive	pre	15.19	27.61	18.11	18.98	1.55	3,28	227.46	146.63
	post	15.30	31.54	12.65	15.23	**2.81	3,28	592.17	210.94
Percent Constructive	pre	74.03	62.04	65.53	65.97	1.29	3,28	205.72	159.09
	post	79.11	58.24	81.09	70.77	**2.88	3,28	836.32	291.23
Percent Passive	pre	10.77	10.86	16.36	15.05	1.13	3,28	70.78	62.68
	post	5.60	10.22	6.24	14.01	1.95	3,28	126.80	64.90

* Reported as mean total scores

Critical Values: 4.57, $p \leq .01$ *
2.95, $p \leq .05$ **
2.29, $p \leq .10$ ***

groups in perceptions of social relations in the school. Probably the high-achieving Leaders became more realistic about relations among peers, some from the frustration of encountering resistance and others from sharing in the dispersion of social power. The lowest ranking group seemed to gain more positive perceptions of the social milieu through participation in the program.

On all the post attitude inventories, except the one-item TAP measures, the top ranking group (1) had the highest mean of the four groups. As shown in Table 63, five F-ratios were significant ($p < .05$) on post assessment. TAMS:Work was significant at the .01 level. Means showed only the top group became more positive in attitude toward work. TAMS:Total was significant at the .05 level and the means follow markedly the grouping by Performance Rank.

The F-ratios for Hess' Internal:Total and TAP:Teacher Helps were significant at the .05 level in February. The lowest ranking group seems to have felt that teachers would seldom or never help them (a score of 1 represented a response of "never") and that they were able to have little control over reinforcements acquired in the classroom. Whether this attitude was the result of Leadership experience is uncertain, but pre means suggest that it was. This supports the earlier interpretations about the Negative Ss and their difficulty in gaining teacher support as well as their lack of skills to be effective. Seven of the eight Ss in Group 4 dropped out of the program in January due to excessive pressure from teachers and peers. Examination of pre and post means for these Ss suggests the deprecatory effect of such

pressures and perceived failure for students.

Summary. There was a clear tendency for the post means to fall in the same rank order as resulted from Performance Ranking. This was especially true of many attitude measures, suggesting that as students are able to carry out a constructive Leadership role successfully there are positive effects upon his perceptions of self and others. To some extent the reverse may be true for those students unsuccessful in the role.

It is interesting to note that on post assessment Performance Group 2 was observed as least constructive in class. This outcome, and some low self-reports, may be accounted for by their strong desire to be the most influential Leaders. Such trends are interesting and suggest different types of teacher support needed by the different types of Ss in this form of intervention program.

Subjective Analyses

Throughout the study, constant feedback was elicited from teachers and students regarding the successes and difficulties being encountered with the Leadership Program. Some interviews were informal but recorded carefully in a notebook. Three formal interviews were conducted with Leaders, two of them in groups of four from each class. Two interviews were held with teachers formally requesting information about each Leader. Samples of these interview forms are found in the Appendix (I-15). Detailed results of the interviews and written evaluations will not be provided here. However, it is important to summarize the reports.

The comments recorded from both teachers and students confirmed the distinctions made between teacher groups. Both information from students and teachers consistently reflected differences between the groups in terms of teacher support of Leaders and opportunity for successful experiences with such activities as discussions.

Teacher Reports. The teachers in Teacher Group One were consistently more positive than teachers in Group Two in their evaluations of Leaders and the Program. They more frequently expressed firm confidence in the ability of the Negative Ss and reported improvements they had observed. By comparison, the teachers in Group Two were more negative and most often reported failures and disappointments. They generally seemed pessimistic about the ability of Negatives, especially males, and about the potential effectiveness of Leadership projects. This group of teachers manifested the greatest resistance to meetings and "extra activities" for the Program.

In spite of differences, both groups of teachers voted unanimously to continue the Leadership Program the next semester and seemed convinced that it was an effective method of developing constructive leadership. They did suggest that meetings be held during recesses and that Leaders not miss class time.

Leader Reports. In the interviews of Leaders, the students reported frequent peer challenges to their efforts to reduce fighting and unkind words. They indicated that the greatest frustration was their inability to hold classroom discussions because of disruptive behavior from some classmates and/or teacher unwillingness to provide

the time and help.

Regarding the out-of-class Leadership Program experiences, all reports were very positive. Leaders especially enjoyed "the meetings," "shadowing," and the field trips taken. Even the Leaders who dropped their active role in January were extremely positive in their November and December interviews. They enjoyed Leadership but had the frustrations of peer challenges and a lack of teacher help. The reasons the four Leaders withdrew from the program are worth noting here as part of the subjective evaluations.

In January the four Leaders from Class 3 (Table 61) dropped out of the program under the heavy influence of the Negative male in their group. They had received much praise in Leadership meetings for outstanding work in December and with the help of the advisor had accomplished fine class discussions in small groups. The teacher of the class was having critical personal problems, during January especially, and reportedly placed acute pressure on the Leaders to be perfect models of behavior. The Negative male became increasingly angry with the teacher until finally he influenced the group to withdraw. The teacher had publicly withdrawn her support from the Program in December.

This information illustrates the complex dynamics involved in this study. Because it was desirable to be totally realistic, these Ss were not dropped from the data. If they had not been included, the effects of the treatment might have appeared more favorable but the basic questions would not have been truly answered. The type of student who "dropped out" was a primary target of the Program. The

analysis must include consideration of the differential effects of participation as a Leader according to characteristics of the student and teacher.

Student Questionnaires. As part of the evaluation of the Leadership Program, the Leaders distributed questionnaires to all their classmates in February requesting simple Yes-No responses to questions to be used for class discussion. The questions and the mean percent responding affirmatively are given below:

Question	$\bar{X}$ % Yes	Range Among Classes
1) Is our school a better school this year?	65	50-90
2) Did the Leadership groups help the school improve?	83	75-92
3) Do you want to be a Leader?	84	71-100
4) Have there been fewer fights at school this year?	70	42-85
5) Have there been fewer unkind words this year?	66	52-93

The responses indicate that students generally regarded the Leadership Program as helpful to the school, something they wanted to see continue and wished to participate in as Leaders. The questions dealing with specific behaviors (#4, 5) and the quality of the school (#1) reflected the pupil perception that changes occurred during the months but much improvement was still desired. This crude measure does provide information which seemed evident in the behaviors observed on the school grounds. Being a Leader was a much coveted opportunity.

Analysis of Some Individual Experimental Subjects

Profiles of four Negative male experimental Ss are presented below to provide the reader with a graphic illustration of their performance on pre and post measures. The Ss were selected to represent the potential benefits to Negative Ss associated with participation as a Leader. A brief sketch of each S will be provided and then the reader is urged to study the data profile of that individual in Appendix III-4.

S#2006: Greg (grade 6) was described initially by his teacher as uncooperative, negative in attitude, a perpetual talker and a bright boy with much leadership potential.

As a Leader his immediate response was one of serious determination and enthusiasm. He was the most dependable Leader of all 32. He remembered and carried out effectively all tasks undertaken and peers seemed to respond to his leadership.

In November Greg's evaluation was that he liked being a Leader very much. He liked most "having fun like going on the trip to the City Council and being a shadow to the vice principal." He was conscientious in his self-monitoring task and after Christmas vacation served as a teacher's helper in grades 1 and 3 as reward activity. He was the principal organizer and administrator of the Monitoring of the hallways.

At the end of his term, he received awards for being a monitor, teacher-helper, and for outstanding self-improvement. He also was awarded a medal for his exceptional contribution of ideas, and for initiating and organizing Leader tasks.

S#0305: Michael (grade 5) was a mixture of a noisy, boisterous clown and an agitator who was constantly disrupting the classroom with his antics or fighting. He completed little work.

As a Leader Michael began challenging the purpose of the group and vying for constant attention and power. He appeared unaware of how to gain status in the group other than through continual quipping, retorting and agitating members. However, in his November evaluation he reported liking "getting to shadow the principal--eating tacos and a soda for lunch, going to a meeting and helping him."

Michael initially was very inconsistent in his tasks, most of the time forgetting to monitor himself or not choosing to do so. He gradually improved and earned the privilege of helping the principal a short time each day. In his February evaluation he reported feeling proud of himself because he had been fighting no more and not "capping" as much.

Michael's teacher reported in February, "Michael has improved so much it's unbelievable. Very helpful. Responds to academics more now. No complaints!" He was awarded the medal for most outstanding self-improvement in class and in leadership meetings.

S#2206: Marcus (grade 4) was a fighter, a hostile agitator. According to his teacher, he accomplished no work and continually caused major disruptions.

Marcus was fairly quiet in Leadership meetings and seemed to regard his role seriously. The advisor and teacher perceived him as responsive but unsure how to proceed.

He reported in November liking most the trip to the Council and "talking about how to stop fighting and get kids to cooperate." He spoke very seriously about his desire to change and for others to change too. He identified his problem of kids fighting him--"trying to make you lose your temper." He felt good about being chosen and felt bad about the time he slipped and got into a fight. At about the same time the teacher reported him as disturbing other children less and trying to do more work in class. In January she noted "great improvement in work."

During the Leadership experience Marcus helped with children in the kindergarten, shadowed the Counselor, and participated in a group dramatizing "problems at school and possible solutions" on videotape. He was awarded recognition for outstanding self-improvement in February.

S#1605: Robert (grade 4) was part Indian, a shy and socially withdrawn child early in the year. He seemed unhappy at school and sometimes was rebellious about activities or work. The teacher believed he had Leadership potential, and since there were no more typical Negative boys in the class Robert was accepted into the Leadership Program, even though he received 0 peer nominations.

Robert was extremely quiet during meetings and contributed nothing even when asked a direct question. However, he seemed to like coming to the meetings and gradually became less shy and quiet. In November he

reported liking very much eating in the Teacher's Room with teachers when he was a shadow to the vice principal. The teacher described him as "much more positive--no more whining or sulking. Really has shown the most improvement!" In January Robert felt better about his class work and his teacher evaluated him as "less rebellious; finishes work now."

During his term as Leader, Robert was an excellent helper to a first grade teacher and participated in the videotape group, though still quite shy. Early in the term he won a ticket to a Black production at Stanford for being one of the top five in attendance and carrying out responsibilities. At the end of the four months, he was given recognition for perfect attendance at all Leadership meetings and for being a teacher's helper.

The above sketches of four Ss should give the reader a clearer impression of the Program and its meaning for some of the students. Following the data profiles of the four Leaders in Appendix III are profiles of two control Negative males in the fourth grade. They were selected to illustrate what kinds of changes might occur over four months when individuals similar to those above are not given an opportunity for constructive leadership. The profiles show that the experimental Ss tended to be more positive or constructive on all post measures. The two control Ss tended to be more negative and destructive after the four months. These examples are not intended to promote generalizations about all Ss but rather to demonstrate the possible consequences for Negative males being placed in either condition for half a school year.

CHAPTER V

GENERAL CONCLUSIONS AND DISCUSSION

General Conclusions

It can be concluded that participation in the Leadership Program influenced the behavior and attitudes of many Ss in a positive direction. Although the results of analysis of variance revealed few statistically significant changes in attitude toward self and school which were clearly related to the intervention, definite trends in the predicted directions occurred on almost all measures. Positive Ss who were Leaders seemed to remain more positive in their self-concepts and attitudes toward school, while many Positive control Ss became more negative. Negative experimental Ss often reported more positive attitudes in February; the males especially perceived increases in social efficacy or power. But the benefits of participation in the Program were evidenced most clearly in changes in the classroom behavior of Negative Leaders. With the more supportive teachers, those students became less destructive and markedly more constructive.

Teacher and peer support of the Leader was a critical factor determining outcomes pertaining to attitudes and behavior. Those Leaders ranking high in performance, successfully carrying out responsibilities, consistently reported the most positive attitudes toward self and school in February. The most effective Leaders tended to be those who

had received the highest number of Peer Nominations of social influence and reported the most positive perceptions of peer social relations in October. Perhaps the limited teacher help provided Leaders exaggerated the importance of peer support. Leaders who received greater peer co-operation were able to perceive more personal success and to develop, as a consequence, more positive attitudes and constructive methods of social leadership.

If teachers were supportive of the Leadership Program, the intervention seemed to be helpful in reducing negative effects of the usual social influences in this subculture upon the social self-concepts of females, especially Positives. With a reasonable amount of success in the Leader role, females did not become more negative regarding self in social relationships as did control Ss. Some Negative males with teacher support also were able to improve their classroom behavior and build more positive social relationships than were control Negative males. It should be noted that the lower post scores of control Ss could reflect a depressed effect created by exclusion from the treatment. To answer this question, the means of control Ss will be compared with results obtained on the larger project sample (analysis in process).

Subjective analyses indicated that the Program was evaluated favorably by students and teachers. Students responded generally with enthusiasm, but teachers desired maximum benefits from the Program with very minimal investments of their time and energy. The experimenter evaluated the intervention as very beneficial to many of the students participating, and generally successful in creating school pride and improving student behavior. It failed to promote improved teacher-pupil

relations in most cases and some detrimental tensions resulted from teacher resistance to the Program or failure to cooperate with Leaders. In the opinion of the Advisor, too much pressure was placed upon some Leaders by teachers who resented their attitudes of confidence or criticism and by teachers rigidly focused on academic goals.

As was discussed in Chapter II and at points throughout the chapter reporting results, the teachers failed to complete their part of the designed intervention. Because of the lack of consistent teacher support in the classrooms and the absence of cooperative planning and evaluation between teachers and Leaders, the designed intervention was only partially carried out. In a sense, a partial treatment was accomplished. This fact is important in evaluating the outcomes of the effort. More detailed evaluation of the intervention by the experimenter will be presented in the discussion section which follows.

Absolute replication of this type of action-research project is impossible. However, the experimenter would encourage the testing of the same basic intervention design in a school with similar needs where teachers would be more consistently supportive and more skillful in facilitating the growth of pupil self-direction. More accurate estimates of the potential value of such a Leadership Program would then be obtained. Many questions remain unanswered but this study provided many clues and some clear directions.

Discussion

In this section the problems of measurement, the limitations of the design, and the experimenter's evaluation of the intervention and

its limitations will be discussed. The section will close with a consideration of the implications of this study for education of the low-income Black elementary student.

Problems of Measurement:

There are two potential sources of error in measurement which should be considered. One area pertains to the appropriateness of the instruments for various types of Ss, and the other area relates to optimal conditions for the administration of the inventories. To evaluate both potential sources of errors, information was gathered from the trained testers. The testers were carefully selected as experienced and competent teachers. They were asked to make note of any difficulties exhibited by Ss while completing the inventories and to record impressions of responses to the testing situation and the instruments.

The Instruments. After using the Sears and Hess measures over three years in the same community with children in grades three to six, the research staff of the Stanford project has found no evidence that the questions do not have meaning for the individuals or that the inventories are not as valid in the low-income Black population as they have proven to be in middle-class white communities. Even though specific interpretation of some items may differ between individuals or subtle response sets may exist on these measures in the low-income Black community, there is no indication that there is a greater amount of error from that source than occurs with Ss from another socio-economic population. Testers have read the items to the Ss and have

answered any questions regarding meaning. In a few cases, testers systematically provided alternative phrases to clarify meaning. No tester reported children being unable to understand either directions or items, and all Ss responded readily with only occasional uncertainty. One would assume that mental ability influences accuracy of response on the four- and five-point scales, but that is a bias in all scaled inventories except where intelligence is controlled.

In summary, there is no evidence that the instruments were not appropriate for the Ss. The Gordon inventory was used by Gordon in Florida with similar students and its items are simple statements. TAP and TAMS, which were constructed by the experimenter for this study, were comprised of straightforward, simple statements which related to clearly defined behaviors. The high coefficients of internal consistency on TAMS evidence clarity of meaning for Ss. The inventories seemed to measure adequately the target attitudes.

Administration of Measures. Error in measurement was more apt to have occurred in relation to the administration of the instruments. Testers observed, as did the experimenter and Stanford research staff, that the emotional climate of the school was quite volatile. There was great variation in the moods of groups and individuals. Some Ss would have extremely high and low days. Testers were instructed to return students to the classroom if they were not in an appropriate mood receptive to testing. This only occurred once, but testers considered it on several occasions. It was very difficult scheduling time approved by the teachers to withdraw the eight Ss from the classroom for testing.

Often they allowed it only at times students anticipate most, i.e., art or sports activities. Some students were annoyed on occasions by having to leave these events for testing. Testers sometimes observed that students were upset by classroom pressures or conflict occurring prior to the testing period. Occasionally, individuals were upset by knowing they would have to make up difficult work missed during testing, perhaps during recess. Most of the time, however, Ss enjoyed the testing experience and the testers reported they were able to create a comfortable, relaxed atmosphere. A few individuals would try to rush ahead and finish early, not thinking carefully, and the tester would encourage slower, more careful responses. With a few exceptions, they were able to prevent careless rushing.

One other criticism by testers of the testing situation was the small room which was provided for administering the inventories. Eight children were placed around two small tables in a room about 10 x 8 feet. The room was on a corner where all classes passed on the way to the computer building and to the cafeteria or offices. It was not particularly quiet. Testers felt there sometimes was too much desire to compare answers verbally or make comments about the items because the students were sitting unavoidably close to each other. The testers also reported being amazed at the apparent lack of influence upon each other as individuals remained very independent in their responses. It was not possible to alter much the environment for testing, but it would be advisable in future research.

Limitations of the Design:

A few limitations in the research design should be mentioned. Perhaps the most serious limitation was in the classification of Ss as Negatives or Positives. Three factors limited accuracy in classifying Ss by attitude: 1) teacher perception of the characteristics described, 2) availability of each type within classes, and 3) the need for a balanced design. To balance the design, eight Ss were needed from each class, two in each category of attitude and sex, to be randomly assigned to experimental or control conditions. In some classes, the teachers did not perceive any of the girls as Negative. Some teachers perceived no "really" Positive boys. Some classes had only a small number of girls from which to select four "Leaders," two of each type. Therefore, some Negatives were sometimes more withdrawn or apathetic than hostile and disruptive. This was especially true of the Negative girls. This circumstance also was the reason some teacher-identified Leaders received few Peer Nominations.

Another factor was teacher accuracy in classifying students by attitude or identifying leadership ability. During the intervention the experimenter was not aware of subject classification. In December and in February she classified the experimental Ss as Positives or Negatives to see if classification by teachers and Advisor would match. The experimenter did not restrict herself to equal distribution of each type but based classification upon acquaintance only with the subject as a Leader. Of the 16 Positive Ss named by teachers, five were classified as Negatives by the Advisor. Of the 16 Negative Ss,

six were classified as Positives based on behavior during participation in the intervention. Teachers may have held different perceptions of the child, but classification also was dependent upon the composition of the class and the numbers of each type requested.

Loss of Subjects as Active Participants. Another limitation of the design was the assumption that all Ss would complete the treatment. Eight Ss became inactive, dropping out of the meetings and assuming no further responsibility, for reasons previously mentioned. Those eight did receive certificates for participation at the Awards Assembly, and they retained the title of Leader until the end of the term. New Leaders replaced them at the beginning of the second term. Some maintained some relationship with the Advisor, but the basic treatment during the second half was only possession of a title. Post measurement of these Ss shows no consistent trend and probably more accurately reflects Teacher treatment. One teacher reported that the four Leaders in her class became more effective in the classroom after they withdrew and "the pressure was off." Observers noted improved relationship with the teacher except for the Negative male who became increasingly hostile. It was the judgment of the experimenter that the eight Ss would not have dropped out if the teachers had encouraged them and helped them be successful. Teacher support seems essential for the Leadership Program to help Negative students, especially.

Teacher Awareness. A third possible limitation upon the design and findings of the study was the fact that the teachers were aware of the status of control Ss. Since the teachers were involved in the

planning of this program, the experimenter explained the need for "comparison" students equally able to participate as Leaders and for measurement of both groups to evaluate the effectiveness of the program mid-year. Since this program was part of the larger research project of in-service training, the teachers accepted the idea of a design for systematic study being necessary. It was understood that the "comparison" students could serve the next semester if teachers and students decided mid-year to continue the program. The teachers were told to treat the "comparison" students no differently from others, and not to let them know they might become Leaders in the Spring.

During the four months, November through February, it became evident that some teachers were treating all eight Ss equally as "the class leaders," and others were pressuring control Ss to "shape up" if they wanted to become Leaders the following term. It is not known how much was communicated to the students, but one classroom observer heard the teacher refer to the eight classroom Leaders and suggested the four not presently in the Program probably would be chosen for the next term. At least two or three teachers are thought to have used the promise of "probably" becoming a Leader to threaten control Ss and to demand more productive behavior from them. This information can be regarded as hearsay but should be mentioned as a problem to be avoided in the future.

The Experimenter's Evaluation of the Intervention:

Content of the Sessions. The content of the Leadership meetings probably should be more task-oriented with short-term projects throughout

the year. Problem-solving skills need to be developed more gradually than was attempted by this experimenter when teachers are not developing those skills through regular use in the classrooms. Many Ss had never been given opportunities to study social problems and test alternatives through the problem-solving methods employed continuously during the first ten sessions. Those Ss often were not able to respond to the tasks with confidence or perceived success.

An unresolved dilemma occurred for the Advisor when the Leaders, having been granted decision-making powers, proceeded to set unrealistic goals or plans of action which could not be successfully accomplished. The Advisor attempted to use such occasions as learning opportunities, but was sensitive to the difficulty in countering group decisions without negating the power previously granted to them. An example was the Good Citizen Project intended by the Leaders to change the entire student population of the intermediate grades. Smaller steps were needed for success to be experienced, as occurred in the subsequent "task forces."

Inclusion of Negatives. Some of the most effective leadership was provided by Negative Ss and the Leadership experience was unquestionably important to them. However, the Negative Ss who were hostile and reluctant to participate in the Program seemed to gain little benefit from participation, and did damage the group process and spirit of unity. It would appear most wise to include only Negatives who exhibit a desire to participate when invited.

Selection of Leaders. The results indicate that the best procedure for selection of Leaders might be Peer Nominations or the more typical procedure of elections. However, the experimenter still believes there is merit to the approach employed whereby teachers may nominate a child who would not be nominated or elected by his peers. This may be especially helpful in providing the shy or socially ignored child an opportunity to develop leadership potential the teacher has identified in him. A strong social hierarchy exists in many elementary schools. The basic question is whether to capitalize upon the power of the existing hierarchy or to attempt to alter its influence by introducing other social leaders.

Location and Times of Meetings. It would be desirable to have a classroom as headquarters for the Leadership Program. The frequent changes in location were disturbing to the children and seemed to communicate the fact that their existence was temporary.

The times provided for meetings were poor: before and during lunch and before afternoon dismissal. At these times the Leaders often were tired or hungry, as well as experiencing a conflict of interests. In order to attend meetings, Leaders frequently had to sacrifice working in the cafeteria or participating in sports. Considering the difficulty demonstrated with concentration on the problem-solving tasks, especially, the Leadership meetings probably would have been more successful early in the morning.

Limitations of the Intervention:

In addition to the basic format and content of the intervention, two elements previously mentioned are critically important to the complete implementation of the intervention. First, full teacher encouragement of Leaders and concrete help with the development of skills are needed. Secondly, strong peer support of Leaders must be gained for the Leaders to be successful.

Teacher Support. From the beginning the need for teacher support was recognized, and it was included as a vital part of the design. Therefore, teachers made the decision to have the Program, were involved in decision-making throughout the four months, and were provided help in basic skills and methods of supporting the Leaders. However, in spite of initial enthusiasm the spirit of cooperation waned and resistance became more prevalent.

Many teachers seemed to expect sudden change in students, and some began to make excessive demands for perfection from Leaders. Teachers became pressured by holiday activity in December and forced the cancellation of reward activities planned by the Leaders for "Good Citizens." As will be documented in a technical report now in process (Sears et al., forthcoming), the morale among teachers in the district had been low and the work load was perceived by them as excessive and frustrating. Consequently, although they intended to help Leaders they seldom believed they had the time or energy to attend to that responsibility. Even with teachers in Group One, Leaders did not receive much help with follow-through on tasks, with developing emotional

control and methods of constructive influence with peers, or in gaining skill in self-direction.

All but one teacher at some time expressed resentment that the Leaders met during class time (about two hours a week at most) and consumed other class time with Leadership tasks such as helping in other classrooms or holding discussions. Many teachers manifested the fear that adults in the school were losing control, and none were comfortable releasing power for self-direction to the students unless they could control exactly how it was used. Teachers refused or forgot to remind Leaders of meetings and were irritated by interruptions to withdraw them from class. Most of them found the classroom observations annoying or threatening

As was stated in Chapter I, the behavior of both teachers and students had to be modified to break the cycle of negative reinforcements. When change in pupil behavior was slower or less complete than desired, teachers reverted to old patterns of interaction. The absence in the classroom of the teacher behaviors emphasized in the weekly in-service training sessions is documentary evidence of the minimal level of teacher support of the Leaders. The table below provides percentages of each relevant teacher behavior observed during 300 rounds, gathered both Fall and Spring, for use in evaluating the in-service aspect of the Center research project. The behaviors listed are those considered critical for the development of student self-direction and leadership skills. It is most important to note the number of zero percentages.

Peer Support. The second element necessary to the intervention

Table 64

Percentage Occurrence of Selected Teacher Behaviors
for Individual Teachers and Teacher Groups One and Two (T-1, T-2)

(Teacher by Class Number, as Table 61)

Teacher Behavior		T-1 4	T-1 5	T-1 8	T-1 2	T-2 3	T-2 1	T-2 6	T-2 7
Reinforces positive behavior	pre	2.0	1.9	1.0	10.0	0.7	1.7	2.5	1.0
	post	0.0	0.9	0.0	3.8	0.0	0.0	0.0	0.5
Recognizes pupil abilities	pre	0.0	1.0	0.0	0.0	0.0	0.0	0.4	0.7
	post	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Acknowledges improvement or effort	pre	1.3	0.6	2.9	0.6	0.4	0.7	4.1	0.3
	post	0.0	1.3	0.0	0.5	1.9	0.0	1.0	0.9
Recognizes individual initiative	pre	0.0	0.3	0.3	0.0	0.0	0.0	0.8	0.3
	post	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0
Offers choices to pupils	pre	0.0	0.6	1.0	0.6	0.0	1.3	0.4	1.7
	post	0.0	0.0	0.0	0.0	1.0	0.0	0.5	0.0
Develops a pupil's idea	pre	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	post	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asks a pupil to develop an idea	pre	1.6	2.5	0.3	0.0	0.4	0.0	0.0	0.0
	post	0.4	0.4	0.8	0.0	0.0	0.4	0.0	0.0
Gives approval	pre	8.0	8.7	9.2	21.1	9.3	11.9	10.6	7.0
	post	6.2	13.2	2.6	13.7	10.5	19.1	6.5	13.6
Controls behavior	pre	13.7	15.2	10.6	21.8	24.8	24.5	11.9	16.0
	post	7.9	13.2	6.8	32.3	30.5	17.8	29.5	11.4
Deals with human relations	pre	0.7	0.0	0.0	0.0	0.0	0.3	1.2	0.0
	post	0.0	0.4	0.0	0.0	1.0	0.0	0.0	0.0

Table 64

ntage Occurrence of Selected Teacher Behaviors
al Teachers and Teacher Groups One and Two (T-1, T-2)

(Teacher by Class Number, as Table 61)

	T-1 5	T-1 8	T-1 2	T-2 3	T-2 1	T-2 6	T-2 7	$\bar{X}$ % T-1	$\bar{X}$ % T-2
	1.9	1.0	10.0	0.7	1.7	2.5	1.0	3.7	1.5
	0.9	0.0	3.8	0.0	0.0	0.0	0.5	1.2	0.1
	1.0	0.0	0.0	0.0	0.0	0.4	0.7	0.3	0.3
	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.5
	0.6	2.9	0.6	0.4	0.7	4.1	0.3	1.4	1.4
	1.3	0.0	0.5	1.9	0.0	1.0	0.9	0.5	1.0
	0.3	0.3	0.0	0.0	0.0	0.8	0.3	0.2	0.3
	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.5
	0.6	1.0	0.6	0.0	1.3	0.4	1.7	0.6	0.9
	0.0	0.0	0.0	1.0	0.0	0.5	0.0	0.0	0.4
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.5	0.3	0.0	0.4	0.0	0.0	0.0	1.1	0.1
	0.4	0.8	0.0	0.0	0.4	0.0	0.0	0.4	0.1
	8.7	9.2	21.1	9.3	11.9	10.6	7.0	11.8	9.7
	13.2	2.6	13.7	10.5	19.1	6.5	13.6	8.9	12.4
	15.2	10.6	21.8	24.8	24.5	11.9	16.0	15.3	19.3
	13.2	6.8	32.3	30.5	17.8	29.5	11.4	15.1	22.3
	0.0	0.0	0.0	0.0	0.3	1.2	0.0	0.2	0.4
	0.4	0.0	0.0	1.0	0.0	0.0	0.0	0.1	0.3

was peer support. Generally, the students were supportive of the Program but a few in each class enjoyed challenging the Leaders. Without teacher assistance, some Leaders were unable to handle challenges to their authority. Some of the Leaders appeared ineffective with peers and this was probably due to a lack of genuine popularity. Those students who were selected by teachers as Leaders but received few Peer Nominations did not seem to gain much more influence in the peer group while participating in the Leadership Program.

Although the Leadership Program had the general support of peers, for the intervention to be fully successful individual students should have perceived themselves as participants in the Program also. This involvement was not accomplished due primarily to the failure of most teachers to conduct discussions, allow the organization of projects, and to promote the goals of the Program in a positive manner.

Final Conclusions and Implications of the Study

Considering the complexity and the limitations of this study, it is meaningful that the hypothesized results of the intervention were evident in consistent trends and sometimes occurred with statistical significance. Subjective evaluation of the study cannot deny the importance of such Leadership experience for elementary students in the low-income Black community. Students remained excited about it all year and Leaders benefitted personally in many individual ways. The treatment essentially was different for every individual and its impact will never be completely measurable. Young Black males are especially eager to gain social power and the need is critical for guidance toward

constructive direction of this desire and development of skills for effective leadership. Unless the social power possessed by many students is channeled toward constructive ends, teachers and administrators will continue to battle through power struggles and precious teaching opportunities will be lost to classroom chaos or student apathy.

Systematic study of techniques in measurement and implementation needs to continue so that greater confidence and more information can be gained regarding the nature and effect of the intervention. It is hoped that other educational researchers will test the effectiveness of the Leadership Program in a variety of situations where similar changes in student behavior and attitudes are desired, possibly eliminating some of the obstacles encountered in this exploratory work. The possibility of an intensive design with a few individuals should be explored because of the complexity of the individual responses to such an experience.

BIBLIOGRAPHY

Bandura, A. 1969. Principles of Behavior Modification. New York: Holt, Rinehart & Winston.

Bany, M., Johnson, L. 1964. Classroom Group Behavior: group dynamics in education. New York: The Macmillan Company.

Battle, E., Rotter, J. 1963. Children's feelings of personal control as related to social class and ethnic group. Journal of Personality, 31:482-490.

Bower, E. 1961. Primary prevention in a school setting. In Caplan, G. (ed.), Prevention of Mental Disorders in Children. New York: Basic Books.

Bronfenbrenner, U. 1970. Two Worlds of Childhood. New York: Russell Sage Foundation.

Cartwright, D., Zander, A. 1968. Group Dynamics: research and theory. New York: Harper and Row, Publishers.

Cohen, E. 1970. A New Approach to Applied Research: race and education. Ohio: Chas. E. Merrill Publishing Company.

Coleman, J., et al. 1966. Equality of Educational Opportunity. U. S. Department of Health, Education, and Welfare. Washington, D.C.: Government Printing Office.

Crandall, V., Katkovsky, W., Crandall, V. J. 1965. Children's beliefs in their own control of reinforcements in intellectual-academic achievement situations. Child Development, 36:81-109.

Edwards, A. 1968. Experimental Design in Psychological Research. San Francisco: Holt, Rinehart & Winston.

Fiedler, F. 1968. Personality and situational determinants of leadership effectiveness. In Cartwright and Zander (eds.), Group Dynamics: research and theory.

Gnagey, W. 1960. Effects of a deviant student's response to discipline. Journal of Educational Psychology (February), 51:1-9.

Gold, M. 1968. Power in the classroom. In Cartwright and Zander (eds.), Group Dynamics: research and theory.

Gordon, I. 1968. A Test Manual for the How I See Myself Scale. Florida Educational Research and Development Council.

Grosser, D., Polansky, N., Lippitt, R. 1951. A laboratory study of behavioral contagion. Human Relations, 4:115-142.

Gurin, P., Gurin, G., Lao, R., Beattie, M. 1969. Internal-external control in the motivational dynamics of Negro youth. Journal of Social Issues, XXV (3):29-53.

Hess, R., Shipman, V., Brophy, J., Bear, R. 1969. The cognitive environments of urbal preschool children: Follow-up phase. Graduate School of Education, University of Chicago.

Hilgard, E. 1965. The human dimension in teaching. AHE Bulletin, Association for Higher Education.

Jackson, P. 1968. Life in Classrooms. New York: Holt, Rinehart & Winston.

Kirk, R. 1968. Experimental Design: Procedures for the Behavioral Sciences. Belmont, California: Brooks/Cole Publishing Company.

Kounin, J. 1967. An analysis of teachers' managerial techniques. Psychology in the Schools, 4(3):221-227.

Kounin, J. 1970. Discipline and Group Management in Classrooms. New York: Holt, Rinehart & Winston.

Lefcourt, H., Ladwig, G. 1965. The American Negro: a problem in expectancies. Journal of Personality and Social Psychology, 1:377-380.

Lewin, K. 1951. Field Theory in Social Sciences: Selected Theoretical Papers. Cartwright, d. (ed.). New York: Harper Publishers.

Lippitt, R., Polansky, N., Redl, F., Rosen, S. 1952. The dynamics of power: a field study of social influence in groups of children. Human Relations, 5:37-64.

Loye, D. 1971. Kurt Lewin and the Black-and-White sickness. Psychology Today (May), 71-76.

Marrow, A. 1969. The Practical Theorist: the life and work of Kurt Lewin. New York: Basic Books.

Mischel, W. 1968. Personality & Assessment. New York: John Wiley and Sons.

O'Leary, K., Kaufman, K., Kass, R., Drabman, R. 1970. The vicious cycle of loud reprimands. Exceptional Children, 37:145-155.

Rotter, J. 1966. Generalized expectations for internal versus external control of reinforcements. Psychological Monographs, 80.

Schmuck, R., Chesler, M., Lippitt, R. 1966. Problem Solving to Improve Classroom Learning. Chicago: SRA.

Sears, P., Hilgard, E. 1964. The teacher's role in the motivation of the learner. National Society for the Study of Education Yearbook, pp. 192-209.

Sears, P. S. et al. 1972. Effective Reinforcement for Achievement Behaviors in Disadvantaged Children: The First Year. Technical Report No. 30. Stanford: Stanford Center for Research and Development in Teaching.

Sears, P. S. et al. (In preparation) Effective Reinforcement for Achievement Behaviors in Minority Children: The Second and Third Years. Stanford: Stanford Center for Research and Development in Teaching.

Sears, P. 1963. The Effect of Classroom Conditions on the Strength of Achievement Motive and Work Output of Elementary School Children. Cooperative Research Project No. OE873.

Sherif, M. 1961. Intergroup Conflict and Cooperation: The Robbers' Cave Experiment. University of Oklahoma.

Thibaut, J., Kelley, H. 1959. The Social Psychology of Groups. New York: John Wiley & Sons.

Tretten, R. 1970. Changing Status Space in Negro Teacher-Pupil Interactions. Stanford University Dissertation.

Whitmore, J., Crist, J., Marx, R. (In preparation) A Model for In-Service Education in Distressed, Low-Income Elementary Schools. Stanford: Stanford Center for Research and Development in Teaching.

Wittes, S. 1970. People and Power. Ann Arbor, Michigan: University of Michigan Press.

APPENDIXES

(I-2a)

GORDON SELF-CONCEPT MEASURE

1.	Nothing gets me too mad	1	2	3	4	5	I get mad easily and explode
2.	I don't stay with things and finish them	1	2	3	4	5	I stay with something till I finish
3.	I'm very good at drawing	1	2	3	4	5	I'm not much good at drawing
4.	I don't like to work on committees, projects	1	2	3	4	5	I like to work with others
5.	I wish I were smaller (taller)	1	2	3	4	5	I'm just the right height
6.	I worry a lot	1	2	3	4	5	I don't worry much
7.	I wish I could do something with my hair	1	2	3	4	5	My hair is nice-looking
8.	Teachers like me	1	2	3	4	5	Teachers don't like me
9.	I've lots of energy	1	2	3	4	5	I haven't much energy
10.	I don't play games very well	1	2	3	4	5	I play games well
11.	I'm just the right weight	1	2	3	4	5	I wish I were heavier (lighter)
12.	The girls don't like me, leave me out	1	2	3	4	5	The girls like me a lot, choose me
14.	My face is pretty (good looking)	1	2	3	4	5	I wish I were prettier (better looking)
15.	I'm very good in music	1	2	3	4	5	I'm not much good in music
16.	I get along very well with teachers	1	2	3	4	5	I don't get along with teachers
17.	I don't like teachers	1	2	3	4	5	I like teachers very much
18.	I don't feel at ease, comfortable inside	1	2	3	4	5	I feel very at ease, comfortable inside
19.	I don't like to try new things	1	2	3	4	5	I like to try new things
20.	I have trouble controlling my feelings	1	2	3	4	5	I can handle my feelings
21.	I do well in school work	1	2	3	4	5	I don't do well in school
22.	I want the boys to like me	1	2	3	4	5	I don't want the boys to like me
23.	I don't like the way I look	1	2	3	4	5	I like the way I look
24.	I don't want the girls to like me	1	2	3	4	5	I want the girls to like me

(I-2b)

25.	I'm very healthy	1	2	3	4	5	I get sick a lot
26.	I don't dance well	1	2	3	4	5	I'm a very good dancer
27.	I write well	1	2	3	4	5	I don't write well
28.	I like to work alone	1	2	3	4	5	I don't like to work alone
29.	I use my time well	1	2	3	4	5	I don't know how to plan my time
30.	I'm not much good at making things with my hands	1	2	3	4	5	I'm very good at making things with my hands
31.	I wish I could do something about my skin	1	2	3	4	5	My skin is nice-looking
32.	School isn't interesting to me	1	2	3	4	5	School is very interesting
33.	I don't do arithmetic well	1	2	3	4	5	I'm real good at arithmetic
34.	I'm not as smart as the others	1	2	3	4	5	I'm smarter than most of the others
35.	The boys like me a lot, choose me	1	2	3	4	5	The boys don't like me, leave me out
36.	My clothes are not as I'd like	1	2	3	4	5	My clothes are nice
37.	I like school	1	2	3	4	5	I don't like school
38.	I wish I were built like the others	1	2	3	4	5	I'm happy with the way I am
39.	I don't read well	1	2	3	4	5	I read very well
40.	I don't learn new things easily	1	2	3	4	5	I learn new things easily

DESCRIPTION OF THE USE OF GORDON'S INSTRUMENT: FACTORS

Gordon (1968) reported five factors resulting from factor analysis conducted by the P. K. Yonge Laboratory during large-scale examination of the instrument by Yeatts in 1967. The items in each factor are listed below. Further information is available in Gordon's manual.

Teacher-School: Items 8, 16, 17, 37; 21, 32.

Physical Appearance: Items 7, 10, 14, 23, 40; 5, 11, 38; 12, 31, 36.

Interpersonal Adequacy: Items 2, 4, 6, 10, 12, 17, 18, 19, 20, 23, 24, 30, 32, 36, 38, 39, 40.

"Autonomy" ("not a clear label" according to Gordon): Items 3, 13, 14, 15, 21, 27, 28, 29, 30.

Academic Adequacy: Items 21, 33, 34, 40; 31, 39.

In this study, the experimenter created a theoretical factor labelled "SPECIAL FOCUS" which included those items most relevant to the intervention and excluded items pertaining directly to academic and physical self-concept. Most of the items were drawn from Gordon's Interpersonal Adequacy and Teacher-School factors. The items are listed below for examination. The total score was used also for information regarding the global self-concept.

"SPECIAL FOCUS":

1. Nothing gets me too mad.
2. I don't stay with things and finish them.
4. I don't like to work on committees, projects.
6. I worry a lot.
8. Teachers like me.
9. I've lots of energy.
16. I get along very well with teachers.
17. I don't like teachers.
18. I don't feel at ease, comfortable inside.
19. I don't like to try new things.
20. I have trouble controlling my feelings.
21. I do well in school work.
29. I use my time well.
32. School isn't interesting to me.
34. I'm not as smart as the others.
37. I like school.
40. I don't learn new things easily.

(I-2d)

FURTHER INFORMATION OF IMPORTANCE REPORTED BY GORDON

The average youngster in Gordon's analysis rated himself between 3 and 4 overall. The trend for Blacks and Whites is toward increased positive reporting as one moves up the grades within his own sex group. T-tests indicated essentially little difference between SES class levels, but those differences which existed showed that children of professionals in the elementary school view school and self more positively than children of unskilled or unemployed parents.

TAP QUESTIONNAIRE ON SENSE OF SOCIAL EFFICACY (I-4)

Child's name: _____ Date: _____

Teacher's name: _____ Grade: _____

ANSWER THESE QUESTIONS YES OR NO ACCORDING TO HOW YOU FEEL MOST OF THE TIME:

1. If you do not like what someone is doing near you in the classroom, you usually can get them to stop doing it._____
2. You can usually get other kids to do what you want them to do at recess._____
3. If you try to do better on schoolwork, it usually works out well. ____

Think about the people listed down the side of this paper. Think about the question. Put an X in the space best describing how you feel most often.

a. If you talk to each person, which ones will listen carefully to you? Mark the X according to how often they listen to you.

	never	once in a while	often	always
a special friend	____	____	____	____
most kids	____	____	____	____
your teacher	____	____	____	____
the principal	____	____	____	____
your parents	____	____	____	____
other adults	____	____	____	____

b. If you have an idea of how to solve a problem, and a plan of what to do, who would let you carry out your idea, possibly even helping you?

	never	once in a while	often	never
your friends	____	____	____	____
your teacher	____	____	____	____
the principal	____	____	____	____
your parents	____	____	____	____
other adults	____	____	____	____

REPORTS OF TESTS OF RELIABILITY ON ALL ATTITUDE MEASURES USED IN ANALYSIS

	Pre-Post r (n=32) (Control Ss)		Pre-Post r (n=200+)	Internal Consistency	
				Project Year II	Original Sample*
Sears Self-Concept					
SOCIAL RELATIONS	.28		Currently being prepared for SCRDT Technical Report	.45	.66
SOCIAL VIRTUES	.07			.27	.68
WORK HABITS	.47			.45	.64
HAPPY QUALITIES	.12			.24	.56
TOTAL SCORE	.34			.85	.90
Gordon Self-Concept					
SPECIAL FOCUS	.22	Yeatts .89		(Being prepared by R. Shavelson)	
TOTAL	.50				
(Gordon's Pre-Post r's, n=34)					
Interpersonal Adequacy	.82		the source of items grouped as "Special Focus"		
Teacher-School factor	.45				
Emotions	.70				
Hess Locus of Control					
INTERNAL: Failure	.31			(not available)	
INTERNAL TOTAL	.15				

*The original sample was from a neighboring middle-class community which was predominantly white. The number in the sample was 225+. Subareas of Social Virtues and Happy Qualities appear to have less reliable meaning or response in the low-income Black population. This suggests further research regarding differences between the populations on such items as are included in those areas.

Test Reliability Reports -- Continued

	Pre-Post r (n=32)	Pre-Post r (n=200+)	Internal Consistency
TAP			
KIDS LISTEN TO ME	.59	(not available)	
TEACHERS HELP ME	.51		
THE PRINCIPAL HELPS ME	.20		
TAMS			N = 283
TOTAL	.45		.92
POWER	-.02		.62
SOCIAL	.44		.64
WORK	.53		.76
TEACHERS	.29		.67
LIKING SCHOOL	.54		.60

(I-8a)

OBSERVATION OF PUPILS

After locating the child to be observed, watch his behavior carefully for about 15-30 seconds. Then, code what you have observed as a behavioral unit, placing a check in every box indicating an ingredient of the unit. The schedule is divided into six categories: 1) TEACHER PURPOSE or basic nature of the activity; 2) CONTENT of the child's response; 3) BEHAVIOR specifically defined in terms of ingredients of the unit observed; 4) AFFECT as evidenced in the child's response or other behavior; 5) OUTCOME of the child's behavior; 6) OBJECT to which the behavior was directed. The categories are defined on the following pages.

The method of obtaining behavior samples will be a time-point sampling method. The observer will be given a folder containing a coding sheet for each child to be observed unless it is group observation. She will begin with the child whose sheet is first and proceed to observe one "round" on each child before repeating the process. The observer must locate the children by reference to picture or name tag initially. On successive observations, the child should be quickly located, observed until the behavioral unit is understood (about 15-30 seconds) and then recorded on the coding sheet. The observer will be observing a classroom for an hour at a time. Before leaving, a simple check should be made to be certain an equal number of "rounds" was obtained on each child. If 12 rounds were obtained, for example, a mark should be made over the round number at the top of the column; then, the new date and time should be added to indicate a second set of rounds.

DEFINITIONS OF CATEGORIES AND BEHAVIORS

Category 1: TEACHER PURPOSE

The purpose of this category is to provide simple information as to the purpose and accompanying expectations of the teacher. The three classifications are:

TRANSITION--PROCEDURES: the class is involved in a period of transition between subjects or activities, or are engaged in routine procedures such as obtaining materials, cleaning up, etc.

GROUP LEARNING: this pertains to any activity in which the teacher is directing her teaching behavior to the whole group and is desiring the focus of attention upon her or a learning source, such as a film.

INDEPENDENT LEARNING: the teacher is asking the children to engage in work at their seats or independent of her close supervision or direction.

The above classifications are mutually exclusive.

Category 2: CONTENT of the child's behavior

The purpose of this category is to identify the basic nature of the child's behavior in light of the goal intended for the period observed.

CONSTRUCTIVE: behavior which contributes toward the attainment of the teacher's goal of learning, procedures to be completed or social cooperation. Such behaviors include--responding to teacher or task; answering questions; listening to group or individual communications; volunteering for a responsibility; accepting responsibility willingly when asked; offering alternatives, ideas, opinions; on-going task-attending, carrying out responsibility; helping.

DESTRUCTIVE: behavior which disrupts the behavior of the individual or group toward accomplishment of the identified goal. Such behaviors include--ignoring teacher or authority; conveying challenge to authority, defiance, refusal to comply; expressions of anger, hostility, upset feelings or ego-defensive behavior like arguing unnecessarily or arrogantly; non-task-attending, converses, wastes time

with self, does not complete task, shows no interest and little effort, lack of concentration; seeking attention or release via disruptive behavior; "off-location" wandering.

PASSIVE: behavior which can be described neither as constructive or destructive. This category includes: daydreaming, compliant task-orientation, passively watching others or mechanically occupying self (e.g., shredding paper).

The three categories can be discriminated on the basis of effect upon others and evident emotional state of the child, positive, negative or very neutral.

Category 3: BEHAVIORS

The purpose of this category is to identify the ingredient elements of behavior composing the behavioral unit identified as constructive, destructive or passive. Therefore, more than one behavior may be included in the same observation round. For example, a child may criticize, suggest and provide information all within one 30-second behavioral observation. Another example is the expression of hostility and the challenging of authority. The behaviors, therefore, are not to be considered mutually exclusive.

INFORMING, EXPLAINING: providing factual information, answering a question or explaining an idea which appears to reflect acquired knowledge.

THINKING, REASONING: developing his own thinking or reasoning through a series of steps in problem-solving which appears to expand or apply acquired knowledge. The behavior may be in response to teacher, peers, or himself as when trying to figure out how to do something in an art activity.

CHOOSING, SUGGESTING: making a choice, decision, plans, or suggestion from alternatives identified by the teacher, peers or himself.

ASKING A QUESTION: asking a question which is meaningful to him, reflecting a desire to know; not evident attention-seeking.

COMPLIMENTING: giving positive comments or signs of evaluation, approval, or praise.

CRITICIZING: communicating disapproval to a peer or verbally criticizing the statement or behavior of a teacher or peer; this includes challenging ideas expressed. It should be evident that the child is communicating criticism.

LISTENING/WATCHING: observing or listening to the communication or interaction of others without making any overt response. The child may be the object of intended communication; if he listens and responds with an answer, for example, both the fact that he listened carefully and the nature of his response should be coded as part of the unit observed. If he is watching or listening to others in place of attending to his own task, then the communication is unintentional. That behavior would be placed only in this category if his interest was captured by arousing activity and he was not escaping his own task primarily.

AWARENESS OF OTHERS: action or words which communicate an awareness of the feelings or needs of others, whether or not the communication is received.

COMMUNICATING SELF: an expression (verbally) to others of own feelings, opinions, needs. This may be in response to a question or initiated by the child.

ATTENTION-SEEKING: behavior such as wandering around the room, tapping another child, attempting to start a conversation or interaction; no other purpose is evident to explain the behavior.

ROUTINE TASK: performing a routine task perfunctorily (routine procedures); e.g., getting out books, sharpening a pencil, lining up, etc.

COMPLIANCE-TASK: performing a learning task passively or only because of necessity in response to teacher assignment or expectations; an indifferent or negative manner indicates the child doesn't enjoy the work, or find it interesting or rewarding.

NORMAL TASK: performing a learning task with sufficient interest evident that it can be concluded that the child finds the task rewarding or completion of the task rewarding. This category includes enthusiastic participation as well as moderate interest.

(I-8e)

HOSTILITY, ANGER: expressing anger, frustration, strong displeasure in behavior directed toward a physical object or a person; the feeling of anger should be evident and not a matter of inference. Examples: child uses loud, angry tone with teacher, refuses to comply with a request or direction, pounds fist on desk, kicks another child angrily, mumbles with obvious anger toward another.

CHALLENGES, DEFYING: accompanying hostility or anger is behavior defying the authority of the teacher, other adults, or a peer in charge. This behavior is most often verbal; e.g., "I will not! Go ahead and send me to the office! I don't care!" This category could include less hostile challenges as in intellectual debate but only if it is evident that the teacher or peer is being placed in a position testing his power or authority.

NON-TASK ESCAPE: engaging in behavior not considered desirable or appropriate to the purpose of the group or of the teacher's assigned task for the individual. The child appears to want to avoid task-engagement and is doing so by selecting an alternative behavior, such as, shredding paper, watching another group more interesting, "doodling," or playing with trinkets. The motive may be escaping boredom or anticipated failure.

WITHDRAWAL: escaping task-engagement by daydreaming, withdrawing mentally. The child may appear vacant or enjoying fantasy, personal thoughts.

Category 4: AFFECT

The purpose of this category is to describe the child's emotional state as evidenced during the period of observation.

ENTHUSIASTIC: The child is involved in his activity with strong positive affect. He is not distractible and evidences enthusiasm in his animated voice, movement and smiling face.

POSITIVE, NORMAL: the child appears moderately or mildly interested in his activity--not lethargic or indifferent and not enthused. He is concentrating rather consistently on his task; not easily distracted.

NEUTRAL: the child is passively performing a task or behaving in a very indifferent, mechanical or lethargic manner. No signs of the behavior being rewarding are evident. He is very easily distracted from the task.

UNCOMFORTABLE: the child appears to be uncertain, embarrassed, shy, or distressed during the period of observation; e.g., the child looks down, hides, squirms or even giggling in evident self-consciousness.

NEGATIVE, HOSTILE: the child is obviously displeased, angry, expressing dislike toward a person or task. This category includes affect evidenced through frowns (mild displeasure) and sulking to fighting or defiance indicating intense hostility.

Category 5: OUTCOME

BEHAVIOR ACCEPTED: the behavior of the child was attended to, recognized in some way or responded to; e.g., the object of the child's behavior looked at the child and listened, signalled recognition or acceptance (nod of head, e.g.), or interacted with the child on the basis of his previous behavior.

BEHAVIOR REJECTED: the object of the child's behavior "tunes out," or "turns off," indicates disapproval (e.g., frown or signal such as shaking head) or explicitly rejects the effort of the child. This may often result from teacher controls.

BEHAVIOR IGNORED: the behavior of the child was ignored initially and it was never acknowledged, or the continuing behavior was deliberately ignored though the initiation was recognized (e.g., hearing the child start to speak, the teacher turned and walked away).

Category 6: OBJECT

This category simply identifies the object of the child's behavior as intended to gain response from TEACHER, PEER(S), or SELF--the latter being self-direction or self-satisfaction without concern for teacher or peer response.

(I-8g)

CHILD OBSERVATION SCHEDULE

Observer _____ Activity _____
Observing _____

Date _____ Day of Week _____
Time _____ Teacher _____

	1	2	3	4	5	6
(1)						
Transition-procedures						
Group learning . . .						
Independent learning						
(2)						
Constructive						
Destructive						
Passive						
(3)						
Informing, explaining						
Problem-solving . .						
Choosing, suggesting						
Asking a question .						
Complimenting . . .						
Criticizing						
Listening-watching .						
Awareness of others						
Communicating self .						
Attention-seeking .						
Routine procedure .						
Learning task . . .						
Social work						
Social affiliation .						
Hostility, anger . .						
Challenges, defying						
Non-task escape . .						
Withdrawal						
Compliance, obedience						
(4)						
Enthusiastic						
Positive, normal . .						
Neutral						
Uncomfortable . . .						
Negative, hostile .						
(5)						
Teacher						
Peer(s)						
Self						
(6)						
Behavior accepted .						
Behavior rejected .						
Behavior ignored . .						
Non-directed						

SUPPLEMENTARY OBSERVATION INFORMATION FOR INDIVIDUAL SAMPLE CHILDREN

Name of observer:_____ Date:_____ Day:_____
During the one-hour period of observation (_____), _____
(time) (Child's name)
engaged in the following learning activities:_____

Check the relative frequency with which you observed the child exhibiting each behavior listed below. If the behavior occurred in interaction with the teacher or another "sample child," please write the name under "comments."

	Not at all	About once	Often	All the time	Specific comments
working independently on assigned task	___	___	___	___	_____
helping another child with work . . .	___	___	___	___	_____
giving recognition to a classmate for effort or behavior	___	___	___	___	_____
trying to help the teacher by encouraging appropriate behavior . .	___	___	___	___	_____
copying another child's work	___	___	___	___	_____
resisting efforts of a classmate to engage him in destructive behavior	___	___	___	___	_____
sharing materials, working cooperatively	___	___	___	___	_____
expressing independent ideas, making constructive suggestions	___	___	___	___	_____
expressing concern or empathy to another	___	___	___	___	_____
influencing others to listen	___	___	___	___	_____
influencing others to follow directions carefully during routine procedures by setting an example	___	___	___	___	_____
discouraging disruptive behavior through constructive criticism or appropriate controls	___	___	___	___	_____
exerting negative controls on peers which actually disrupted or increased interfering tensions . . .	___	___	___	___	_____
losing temper or expressing hostility	___	___	___	___	_____
ignoring teacher requests or efforts	___	___	___	___	_____
disrupting classwork through attention-seeking behavior	___	___	___	___	_____
wasting time, evidencing disinterest	___	___	___	___	_____
setting a good example of desirable work habits	___	___	___	___	_____
evidencing effort to be positive and constructive generally . . .	___	___	___	___	_____

(I-8i)

REPORT OF INTER-OBSERVER AGREEMENT OBTAINED USING THE PUPIL OBSERVATION SCHEDULE IN CLASSROOMS SIMILAR TO THOSE IN THE STUDY

The observers, after laboratory instruction and introductory practice in the use of the schedule, were trained in classrooms of a neighboring school for three days. On the fourth day, teams of two and three observers were tested for inter-observer agreement in classrooms of the school involved in the study. Although only category two, Content of Behavior, was used in the analyses, reliability was obtained for all categories on the schedule for future use of the data.

The agreement percentages provided below were obtained in October prior to Observation One. Before observation was resumed for each of the subsequent three periods, reliability was re-checked and equivalent or superior percentages of agreement were obtained quickly.

	CATEGORIES					
TEAM	1:Teacher Purpose	2:Content	3:Behavior	4:Affect	5:Outcome	6:Object
1	100	89	86	89	83	83
2	100	95	80	78	83	83
3	100	100	88	78	100	98
4	95	89	80	83	95	100
5	100	100	70	83	95	100
6	100	90	80	77	100	100
7	100	100	89	77	100	100
8	100	90	70	90	90	90
9	95	95	90	95	100	100
10	100	100	80	75	92	92
11	100	95	80	75	92	100
12	100	77	84	100	100	100
13	100	100	83	89	100	100
$\bar{X}$	99	94	81.5	83.5	94.6	96

Every observer was paired with each of the other observers. A total of four observers and three members of the Project research staff were involved in the training and testing of the observation schedule. Most errors seemed related to coding slightly different events in the sequence of teacher-pupil interaction.

(I-10a)

BEHAVIORAL RATING FORM T

Child's name: _____

Your name: _____ Relationship: _____

Think about the child's general behavior. Beside each type of behavior listed, place an "X" in the column which best describes your child. (N=never; S=seldom; O=occasionally; F=frequently; C=continually)

	N	S	O	F	C
1. Completes own work promptly					
2. Works to the best of ability					
3. Seems to enjoy people					
4. Shows respect for adults					
5. Respects the rights and feelings of other children					
6. Initiates conversation with adults					
7. Appears happy and content					
8. Acts confident about ability					
9. Seems angry or defensive					
10. Willingly does work he is asked to do					
11. Volunteers for responsibility involving work, effort					
12. Daydreams or wastes time					
13. Listens carefully to others					
14. Ignores adults					
15. Challenges authority, refuses to do as he is asked					
16. Seems to be seeking attention					
17. Becomes very upset					
18. Encourages others to behave appropriately					

(I-10b)

	N	S	O	F	C
19. Helps others with work	____	____	____	____	____
20. Helps create a happier atmosphere	____	____	____	____	____
21. Is not in the "right spot," where he is expected	____	____	____	____	____
22. Complains, acts disgruntled	____	____	____	____	____
23. Is sensitive to the feelings of others	____	____	____	____	____
24. Carries out responsibilities	____	____	____	____	____
25. Appears interested in assigned work	____	____	____	____	____
26. Participates constructively in group work	____	____	____	____	____
27. Shows enthusiasm for learning and achievement	____	____	____	____	____
28. Concentrates on appropriate task until completed	____	____	____	____	____
29. Contributes ideas or opinions to group discussion	____	____	____	____	____
30. Initiates ideas for projects, activities	____	____	____	____	____
31. Socializes instead of working	____	____	____	____	____
32. Evidences leadership potential	____	____	____	____	____

Additional comments: